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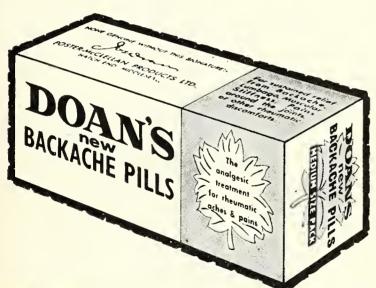
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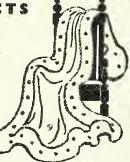
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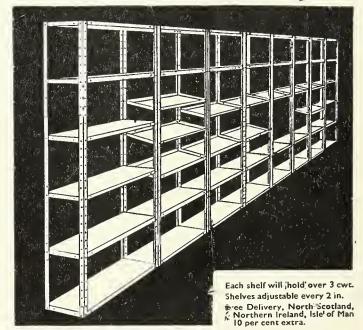
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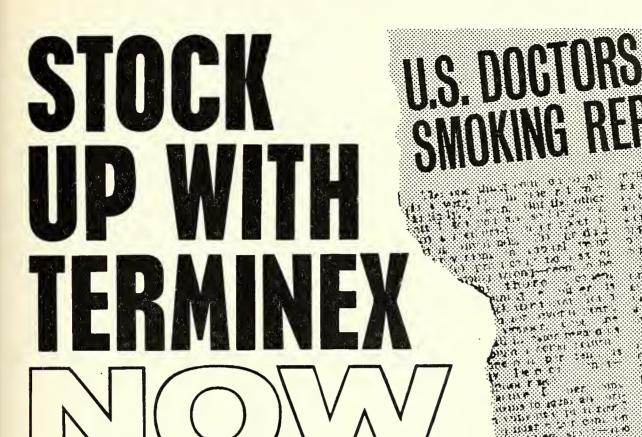
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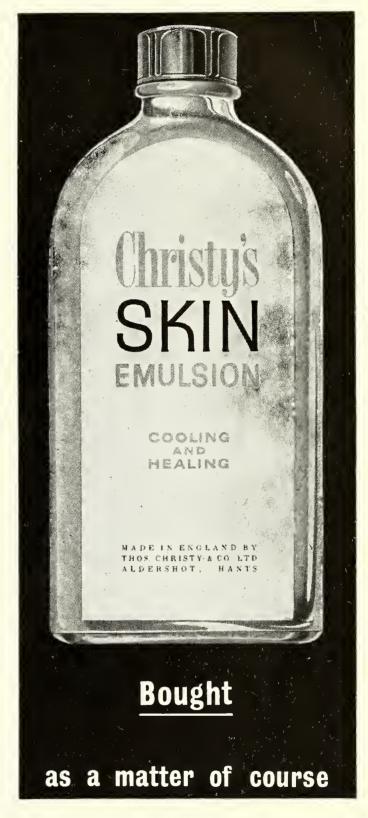
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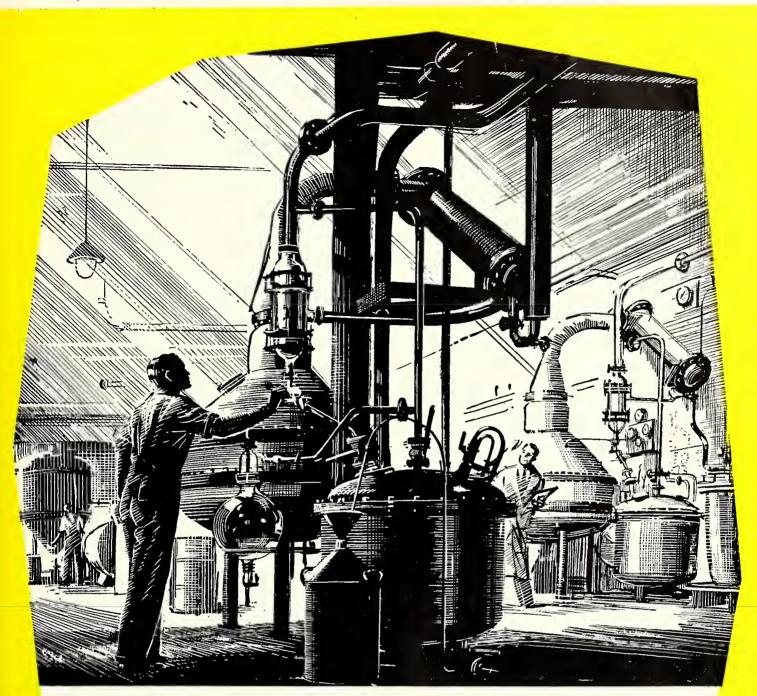
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ESTABLISHED 1859

THE WEEKLY NEWSPAPER FOR PHARMACY and all sections of the drug, pharmaceutical, fine chemical, cosmetic, and allied industries

Official organ of the Pharmaeeutical Society of Ireland and of the Pharmaeeutical Society of Northern Ireland

Volume 181

February 15, 1964

No. 4383

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Volume 181

FEBRUARY 15, 1964

No. 4383

Resale Price Maintenance

SUGGESTED EXEMPTION FOR DRUGS

THE National Pharmaceutical Union has received advice from counsel on the wording of a clause that could be included in the Government's Bill to abolish resale price maintenance and which would exclude drugs, medicines and surgical appliances from the provisions of the Bill.

Sir Hugh Linstead, M.P. (a secretary of the Pharmaceutical Society) is writing to the President of the Board of Trade and the Minister of Health seeking their support for the inclusion of the suggested clause in the proposed legislation. N.P.U. members are being urged to write to Members of Parliament asking them to support the inclusion in the bill of a clause exempting "any drug or any substance recommended as a medicine (as defined in the Pharmacy and Medicines Act, 1941) or any medical or surgical appliance" from its provisions. The Union emphasises that the Bill will be published shortly, and that members should not delay in taking action.

MAKERS JOIN ATTACK

The case for exempting advertised proprietary medicines from proposed legislation to annul resale price maintenance has been put to Mr. E. Heath (President of the Board of Trade) by the Proprietary Association of Great Britain. The Association fears that the ending of R.P.M. would result in fewer retailers stocking home remedies and more chemists going out of business, thus imposing hardship on many people, especially the elderly, who need to buy those medicines quickly and easily for the relief of simple ailments. It is pointed out that R.P.M. has not hindered intense competition, which has kept the retail prices (exclusive of tax) of proprietary medicines down to only one-third higher than in 1939. Mr. Heath is being asked to include in the proposed Bill an outright exemption for all medicines or, failing that, to provide for the industry as a whole, rather than individual manufacturers, to have quick access to the proposed judicial tribunal. Mr. Heath has also been asked to receive a delegation. The Association states that R.P.M. in its industry is in the public interest because:-

Home remedies for simple ailments must be available readily and through widespread outlets, since they are usually required quickly by the individual.

Any serious diversion of business from pharmacies would prejudice the dispensing

of National Health Service prescriptions outside the main conurbations.

Price cutting would disrupt distribution and thus inhibit the marketing of new or improved products.

Other safeguards in the Bill should include:—

That the onus of proof that R.P.M. in the proprietary medicine industry is against the public interest should rest with the Registrar of Restrictive Practices;

That "loss leader" selling of proprietary medicines should be made illegal;

That the manufacturer's right to choose his own methods and channels of distribution should be preserved.

Chemists' Retail Sales

FIGURES FOR DECEMBER

RECENTLY issued Board of Trade statistics show that sales of chemists' goods by independent retailers were 47-4 per cent. higher in December

1963 than in November 1963 and 1 per cent. higher than in December 1962. Multiple retailers' sales were 68·8 per cent. higher in December 1963 than in November 1963 and 8 per cent. higher than in December 1962. Sales by Co-operative societies were 57·7 per cent. higher than in November 1963 and 3 per cent. higher compared with December 1962. The figures do not allow for receipts under the National Health Service.

Conference 1964

SUBJECTS FOR EDINBURGH MEETING

THE minutes of the meeting of the Executive of the British Pharmaceutical Conference, held on January 7, were recently presented to the Council of the Pharmaceutical Society by Mr. J. C. Bloomfield. He reported that the Executive had asked that their warmest congratulations should be conveyed to Dr. T. E. Wallis, a senior past-chairman, on the award of one of the first Charter Gold Medals. A provisional account was received of receipts incurred and payments made in respect of the 1963 Centenary Conference in London. 1,080 full books of Conference tickets had been issued and there had been a small credit balance. At the meeting Mr. E. Knott and Mr. A. W. Patterson (chairman and secretary of the local committee) advised on the arrangements for the Conference in Edinburgh dur-



A COMPANY'S SYMBOL: His hand touching the easel, Mr. B. Schou-Lund (managing director, Leo Laboratories, Ltd.), examines a replica of the Assyrian lion—the company's symbol—at the company's convention in London on February 3 and 4. With him are a number of area managers and representatives from the British company. The convention was the first national sales conference of the British company, which has been established in the United Kingdom for three years.

ing the week beginning September 14. Professor M. F. A. Woodruff (professor of surgical sciences, University of Edinburgh) had agreed to deliver the Conference lecture on the subject of tissue transplantation. The subject which had been chosen for the symposium session was "Aerosols—their Formulation, Efficiency and Hazards." The following professional session subjects which had been suggested by the Council of the Society were accepted:—"Pharmaceutical Problems of Self-medication" by Dr. G. R. Boyes and "The Meeds for Pharmaceutical Mannaver" with creekers representing power," with speakers representing general practice, hospital pharmacy and the pharmaceutical industry. The Executive had agreed that the scheme operated in 1962 and 1963 to assist young authors of science papers to attend the Conference should be repeated on similar lines in 1964.

Safety of Drugs

DOCTORS AND DENTISTS ASKED TO HELP

DOCTORS and dentists are being asked by the Health Minister to help in making the work of the Committee on Safety of Drugs (chairman, Sir Derrick Dunlop) a success. Prescribers are to be kept informed of drugs subjected to clinical trials or marketed without reference to the committee or contrary to their advice. states that neither the Ministers nor the committee wish to intervene in any way in the discretion of a doctor to prescribe any drug that he thinks necessary for the treatment of his patient, but hope that doctors will refrain from prescribing drugs not cleared by the committee and from taking part in clinical trials of drugs

without ascertaining from the manufacturers that the committee have raised no objection to such trials. The committee attaches importance arrangements for the prompt identification and early reporting of adverse reactions, and is considering the best way of collecting and assessing reports of such effects. Manufacturers, sponsors, and importers of drugs have been asked to ensure that any new clinical reports bearing on the safety of drugs already in use are sent promptly to the committee.

IRISH NEWS THE NORTH

Health Services

U.C.A. CALLS A SPECIAL MEETING

ARRANGEMENTS for a special meeting of members to discuss the health services and to meet members of the Local Pharmaceutical Committee were completed at the monthly meeting of the Ulster Chemists' Association Executive Committee held in Belfast on February 4. It will be held in the new hall. 73 University Street, Belfast, 7, on February 19 and is in response to a resolution passed at the Association's 1963 annual meeting. The president (Mrs. A. S. G. Watson) reported that. with the vice-president (Mr. J. C. Wellwood), she had attended a tripartite meeting in London to meet representatives of the Scottish Pharmaceutical Federation and the marketing committee of the National Pharmaceutical Union. They had also attended other meetings in connection with retail price maintenance, at which Sir Hugh Linstead, M.P., had been present. The president also reported that the executive committee had been actively en-

gaged in personally contacting Northern Ireland members of Parliament and had emphasised the seriousness of the situation for chemists if R.P.M. were abolished without exemption for pharmaceutical lines. The secretaries of local associations had been requested to contact their own M.P.s and many members had also done so. They had been encouraged to express their views through the Press. It was agreed that the president arrange to attend a series of meetings with the local associations in the spring to discuss R.P.M. and other matters vitally affecting pharmacy. During the discussion that followed it was agreed that the Pharmaceutical Society of Northern Ireland should be asked to set up a joint committee to examine what steps could be taken to draw the attention of the public to the advisability of purchasing medicines through the pharmacy. Mr. J. K. McGregor reported that the Action Committee had had interviews with sales representatives of some manufacturers. A report was received from Mr. J. Knox (convenor, House Committee) and recommendations concerning house matters were approved. The secretary (Miss A. E. Strachan) reported that a protest had been made to the Ulster Wholesale Chemists' Association against the freight charges being made on goods under £10 value sent by bus or passenger train. She also reported on complaints that certain members were not adhering to the Shops Act hours. They had been investigated and the chemists concerned interviewed. The president expressed pleasure at the attendance of Mr. N. C. Cooper (president, Pharmaceutical Society of Northern Ireland).

The following were elected to membership: Messrs. J. E. Coyle, 49 Bishop Street, Londonderry, Messrs, J. E. Coyle, 49 Bishop Street, Londonderry, and B. McGrath, 83 Glen Road, Belfast, 11. Present were Messrs. H. S. Anderson, W. H. Boyd, J. A. Brown, W. E. Cooper, R. Gibson, T. A. Gibson, J. Knox, W. L. McDonnell, J. K. McGregor, W. J. Moffett, M. C. Mooney, T. I. O'Rourke, C. L. G. Rattie, W. J. Rankin, A. Templeton and J. C. Wellwood, Apologies for inability to attend were received from Messrs, N. A. J. Anderson, B. J. Decny, H. Donaghey, H. W. Gamble, J. McMillan, J. F. Rankin, Hon, Treasurer.

MARKETING "ETHICAL" SPECIALITIES

Problems of an industry under attack

THAT politicians' pressure for "economy at all costs" militated against good medical practice and threatened to dry up the main springs of innovation was the warning given by Mr. A. A. Smith (managing director, Upjohn, Ltd.), in an address to the Marketing Society in London on February 11. Speaking on "Profits and Ethics: the Marketing of Pharmaceuticals," he said the British "ethical" drug industry he said could be judged by every standard of good medicine and good business practice and not be found wanting except

by those who would not see the facts.
"We are an integral part of the quadrilateral of Britain's health—the doctor, the patient, the pharmacist and the drug manufacturer." The system was being subjected to strains and pressures that were affecting its collective efficiency and morale. Doctors were being exhorted to prescribe "standard" preparations in preference to brand name drugs of the highest repute. Chemists had therefore no choice but to stock them. Advertising and direct mail to the medical profession were a necessary part of the process of drug innovation: without them, doctors would not know what new and improved preparations were available.

Contrary to "widespread misunder-

standing and even misrepresentation of the industry," said Mr. Smith, drug prices had been falling, against the trend of prices in general. Prices of the fifty leading branded drugs in early 1963 were on average 12 per cent. lower than in 1960. On the industry's £60 millions sales to the National Health Service, total profits were around £7 millions, or about 11 per cent., half of which was retained for ploughing back. "Is it worth risking a complete disruption of the industry's research and development effort by trying to take away some part of the £3½ millions or so paid out to shareholders of the 200 companies in the industry? The direct impact on drug prices as a whole would soon be negligible. The indirect effect could be disastrous."

Several authorities had repeatedly drawn attention to the inadequate monitoring of standard drugs and prescriptions, and many cases had come to light of the use of substandard drugs and otherwise ineffective preparations. Pressure on doctors to prescribe so-called equivalents was a retrograde step and could well lead to lowering of British medicine to a substandard position.

Other points from Mr. Smith's address will be given next week.

SCOTTISH NEWS

Scottish Factories Close

TWO COMPANIES TRANSFER PRODUCTION

TWO chemical manufacturers are closing their factories in Scotland and transferring production to other plants in England. IMPERIAL CHEMICAL INDUS-TRIES, LTD., are closing within two years a factory at Mossend, Lanarks, at which 230 workers have been employed in the production of ammonia. Processes hitherto carried out at Mossend are being transferred to I.C.I. establishments at Billingham, co. Durham, and on the river Severn, near Bristol.—RENTOKIL LABORATORIES, LTD., are closing down their factory at South Methven Street, Perth, rendering most of their thirty-odd staff redundant. Work is being transferred to Liverpool. The factory, which produces Rodine rat poison, has been established in Perth for over sixty years, first under the name of Thomas Harley, Ltd.

NEWS IN BRIEF

FOUNDERS day is being commemorated at the Sir John Cass College, London, E.C.3, on February 20, when the college will be open to visitors.

An intruder who broke into Mr. S. Boulton's pharmacy at Gainsborough Road, Corby, Northants, recently, stole nothing—but did £25 worth of damage.

From the beginning of April, the twenty-four hour dispensing service operated by Boots, Ltd., at their New Street, Birmingham, premises is being discontinued. Closing time becomes 11 p.m. The company's only "dayand-night" branch will then be that at Piccadilly Circus, London.

THE Poisons (Fluoroacetamide and Fluoroacetanilide) Rules, 1964, which came into operation on February 7, extend the restriction on sale and supply that now applies to monofluoroacetic acid, to fluoroacetamide and fluoroacetanilide (see C. & D., February 8, p. 125).

THE Ministry of Agriculture has issued recommendations for the safe use in Great Britain of trimeturon (N-(4-chlorophenyl)-O-N'-trimethylisourea) a herbicide, morphothion (dimethyl S-(morpholino-carbonylmethyl) phosphorothiolothionate, an organophosphorus insecticide and prometryne (4,6 - bisisopropylamino-2-methylthio-1,3,5-triazine) a herbicide.

JUDGES in the 1964 Starpacks competition of the Institute of Packaging (see C. & D., January 4, p. 1), are Messrs. H. E. Cooper (director, Tandy Halford & Mills, Ltd.); E. H. Dickens (packaging department, Marks & Spencer, Ltd.); E. Richardson (manager, design department, Boots Pure Drug Co., Ltd.); E. G. O. Ridgewell (general manager, Irish Packaging Institute); H. Rothholz (director, H. A. Rothholz and Associates), and R. A. Silk (editor Packaging News).

THE Medical Research Council announces the establishment of a cellular immunology research unit at the Sir William Dunn School of Pathology, University of Oxford, and three new research groups—on the biochemistry and physiology of intracellular organelles (in the department of biochemistry, University of Sheffield); on the biochemistry of connective and lung tissues (in the department of biochemistry, University College of South Wales and Monmouthshire); and on viruses (in the department of virology and bacteriology, University of Birmingham Medical School).

THE International Pharmaceutical Students' Federation student exchange scheme organises working holidays during the summer months to France, Germany, Jugo-Slavia, the United States, and many other member countries. Students having undergone a pharmaceutical training of about one year and young pharmacists who are members of the British Pharmaceutical Students' Association, are eligible to participate. Application forms and further information may be obtained from: Miss M. J. Turpin, I.P.S.F. liaison secretary, 23 Earl's Court Square, London, S.W.5.

TOPICAL REFLECTIONS

By Xrayser

Harsh facts

Company reports have always presented me with problems far beyond my understanding. I have read some with an increasing sense of foreboding as I progressed, in which the most doleful account of the year's activity (or lack of it) has made me feel that I have been financially astute in keeping my available cash in my hip-pocket. Yet, despite the despondency of the chairman's statement, I have discovered at the end of the report that he has declared a dividend of 16 per cent. (same as last year). I find something of the same personal inadequacy when I turn from commerce to an attempt to grapple with the complexities of the second report (p. 124) on the Civil Appropriation Account (class VI-XI) 1962-63, from the pen of that popular author, Sir Edmund Compton (Comptroller and Auditor General). The report contains what must be assumed to be good news, in that the Pharmaceutical Services in England and Wales during the year ended March 31, 1963, cost £2,234,776 less than expected. In explanation, the report states that the number of prescriptions due for payment was less than anticipated, resulting in a gross saving of £3,570,000, but that that highly satisfactory figure was offset by inconsiderate patients who, by demanding fewer prescriptions, paid fewer prescription levies, to the tune of £1,335,000 ("consequent upon the shortfall in the number of prescriptions" as the report puts it). Thus a saving of £3½ millions was reduced to £2 $\frac{1}{4}$ millions, and the cup of happiness was not filled to the brim. I note that, at the end of the report, there is no reference to dividend (same as last year) or to its being received with acclamation. The post of Comptroller and Auditor General is not, it would seem, free from frustration.

Those who sell

The brief extracts from the broadcast given by Mr. Nicholas Herdman on the subject of the generally unsung salesman—in this context "representative "-makes me regret that I did not hear his ebullient address. It is vitally important that such a salesman should have some qualifications or knowledge or experience, and that he should at all times be the company itself and not merely its representative. In many cases he is the only direct contact between the company and the customer, though I find in practice that many large concerns discourage too close a relationship or identification, for reasons best known to themselves. (I am referring to the wide assortment of representatives who call at the pharmacy, and not to the highly specialised product the speaker had in mind.) I am old enough to remember a corps of salesmen who represented their firms so long and so steadily that they became an accepted part of the established pattern. That has changed, and it is not always due to a restless disposition on the part of the representative. He may answer the postman's ring one morning to learn that, for reasons over which he has no control whatsoever, he is now part of a much larger concern than on the previous day. He may, if he is lucky, find himself selling a rival product to that of last week, or he may be transferred to another division of the new monster, in which capacity he may be expected to sell a different class of goods to a completely new clientèle, and his hard-won connection has been destroyed in a boardroom. And in due course the chairman will make his report and declare a dividend (same as last year)—but it will never again be the same for the salesman. If unlucky he may be out of work.

Cantharides

I opened a very old drug bottle the other day, the label of which bore the legend "Cantharis Vesic.", and though the bottle was empty, there still remained colourful traces of brown, green and gold—still beautiful to look at and still nauseous to the nose. I imagine that there is little call for the drug today, though it was once in constant use, in the heroic times of bleeding, purging, vomiting and blistering. But although the blistering beetle has lost popularity, another species of the *Mylabris* has reached heights unknown to cantharides in its heyday. It is now the turn of New York to show its appreciation of *their* power to excite or irritate.

Hospital Pharmacists' Pay

INDUSTRIAL COURT AWARDS A 5 PER CENT. RISE

THE Industrial Court has awarded a 5 per cent, pay increase to all pharmacists in the hospital service. The award is backdated to December 1, 1963, and affects about 1,456 pharmacists in England and Wales and 194 in Scotland. The management commit-tee of the Whitley Council had offered during August 1963 an increase of 3 per cent. in the salary scales of all grades. The staff side were unwilling to negotiate on that offer and it was agreed to refer the matter to the Industrial Court. It was then submitted that the management side's offer was made "with scant consideration of the hospital pharmacists' case." The staff side strongly contended, as they had done before, that hospital pharmacists were a separate, fully professional group of scientists who were scientists in their own right, not responsible to any other professional person, and that their proper level of remuneration should be determined by reference to other comparable groups of scientists of comparable disciplines both inside and outside the National Health Service.

Five Witnesses

In support of the staff side's claim, evidence was given during the hearing by five witnesses, a dean of a school of pharmacy of a university, the secretary and registrar of the Pharmaceutical Society of Great Britain, two chief pharmacists of two hospitals, and the secretary of the National Pharmaceutical Union. Their evidence included a description of the qualifications and the length and type of training necessary for entry. It was stated that about 50 or 60 per cent. of hospital pharmacists were now qualifying

by university degree. The three-year course for the diploma of the Pharmaceutical Society was equivalent as a minimum to a pass degree of the London University in any other science or applied science aspect. Emphasis was laid by witnesses on the claim that hospital pharmacists were scientists in their own right and as such were independently responsible for their work. It was contended that it was misleading to regard hospital pharmacists merely as dispensers of medicine; they did a great deal more than dispensing.

Comparison with Industrial Pharmacy

Reference was made in some detail to the work of the chemist in industrial pharmacy and it was submitted that the work of the hospital pharmacist could quite fairly be equated with that of the industrial chemist. It was conceded that there was an increasing tendency for drugs to be supplied by manufacturing chemists in a fully prepared condition. It was increasingly necessary, however, for the pharmacist to satisfy himself on the quality of the products so received from the manufacturers. In any case there was always the need for special preparations to be made up within the hospital dispensary and some examples were given. Hospital pharmacists, it was stated, had to keep abreast of developments in pharmacology and therapeutics. The two witnesses who were chief pharmacists gave evidence as to the amount of research work carried out in their respective hospitals.

Upward movements in salary levels of analogous scientists were quoted. Public policy, it was submitted, was moving towards an acceptance of the need for the salaries of scientists to

increase in relation not only to the salaries of other groups of employees, but also to the contribution which they were making to the national well-being. The staff side gave reasons for believing that in relation to emigration pharmacists were in no different position from the generality of scientists.

Direct comparison of hospital pharmacists with pharmacists employed in retail pharmacies was considered by the staff side to be unsuitable because of the wide difference in the scientific content of the work and the difficulties of assessing the value of the commercial responsibilities accepted by retail pharmacists, but since the management side had placed some emphasis on that factor during the previous Industrial Court hearing (see C. & D., July 14, 1962, p. 30), the staff side had examined the question further. It was submitted that the two top grades of chief pharmacists could not be compared with the person who was em-ployed in retail pharmacy and that the career grade for the hospital pharmacist was a category 3 chief pharmacist, and it seemed logical to use that group and it seemed logical to use that group as the correct comparison with the manager of an average size retail pharmacy. Reference was made to the survey of salaries paid to employee pharmacists in retail pharmacies con-ducted by the National Pharmacutcal Union and information was placed before the Court to show the salaries, total remuneration and N.J.I.C. equivalents of managers of independent businesses, related to business turnover.

Further Comparisons With Retail

Figures were given to show a comparison between the total remuneration (actual salary, bonus on sales, the minimum of perquisites and in certain circumstances free living accommodation) of managers of retail businesses covered by the N.J.I.C. agreement, those employed by Co-operative societies, those employed by a large retail firm of chemists related to annual turnover, and those of hospital chief pharmacists. The comparable rates for hospital pharmacists were arrived at by showing the annual turnover at wholesale prices of average general hospital pharmacies. It was pointed out, inter alia, that in one particular type of large retail establishment the manager could receive a salary of £2,650. excluding bonuses, as against the chief pharmacist's maximum of £1,355. The Hospital Year Book for 1963 based on Ministry of Health returns showed an expenditure on drugs, dressings and medical surgical appliances in the year 1960-61 of £36,620,328 for Great Britain. The number of chief pharmacists for the same period given by the management side was 702. A division yielded a figure of £52,165 annual turnover per chief pharmacist at wholesale or contract prices.

The secretary of the National Pharmaceutical Union said there was a general dissatisfaction in all sections of retail pharmacy at the amount paid for dispensing National Health Service

COMPARISON OF CURRENT SCALES WITH STAFF SIDE CLAIM

Grade	Present	Staff Side claim (showing incremental progression)	Actual Increase	Percentage Increase at minimum and maximum
	£	£	£	0.4
Pharmacist	725	900	175	24
	080	(6 x 25)	00	0
g : 1	970	1,050	80	8
Senior pharmacist	810	950 (C n 25 and 1 n 40)	140	17
	1 000	(6 x 35 and 1 x 40)	140	13
Chief I and James IV	1,060	1,200		17
Chief I and deputy IV	855	1,000	145	17
		(3 x 40, 4 x 45 and 1 x 50)		
	1,165	1,350	185	16
Chief II and deputy V	940	1,100	160	17
Ciliei II and deputy v	240	(3 x 40, 4 x 45 and	100	17
		1 x 50)		
	1,260	1,450	190	15
Chief III	1,020	1,250	230	22.5
Cities 111	1,0=0	(4 x 45 and 4 x 50)		
	1,355	1,630	275	20
Chief IV	1,070	1,400	330	31
	,	(4 x 45, 4 x 50 and		
		1 x 55)		
	1,480	1,835	355	24
Chief V	1,185	1,600	415	35
		(6 x 55 and 2 x 60)		
	1,640	2,050	410	25

Note:—In certain circumstances allowances additional to actual salary are payable.

prescriptions, which was considered too

As to the management side's estimate of the cost of the claim the staff side drew attention to the fact that when outpatient dispensing had to be done by a retail chemist the procedure was very much more expensive than dispensing at the hospital and the staff side contended that if salaries were increased and more pharmacists were recruited the cost would be largely recovered by the saving on the EC10 procedure.

Management Side's Case

The management side had been unable to agree that a case had been made out for any general substantial increase. They considered, however, that the general circumstances of the national economy and salary move-ments in the National Health Service justified a modest improvement and offered an increase of 3 per cent., representing economic changes since the Court's previous award, and which had been offered and accepted by a large number of different classes of staff in the Health Service. With the 3 cent. offer, hospital pharmacists' salaries would be increased by about 8 per cent. since January 1, 1960 (including the 5 per cent. awarded by the Court with effect from April 1, 1962). Since the matter was so recently before the Court no new factors had emerged justifying departure from the structure agreed in 1960 and revised in 1962.

The case put forward by the staff side was substantially the same as that put to the Court in 1962. The management side stated that they now repeated the substance of the general comments they had then put before the Court. The staff side had referred again to the earnings of a number of other groups which they implied must be of about equal value because their length of training was more or less the The management side mainsame. tained that it was a criterion which would not bear examination. Until 1958 a hospital student pharmacist with the appropriate educational qualification could obtain registration after two years' professional training followed by one year's practical training or by undertaking two years practical training before the two years theoretical. The management side did not accept that salaries should be increased merely because the prescribed period of theoretical training had been increased: there was no evidence that other employers of pharmacists had increased salaries on that account. The length of the hospital pharmacists' training no doubt confirmed that theirs was a skilled calling, but that did not in itself provide any justification for equating pharmacists' earnings with those of other professions whose period of training was of the same duration. Biochemists and physicists in the hospital service had consistently been paid at higher rates than pharmacists.

That difference, in the management side's view, appropriately reflected differences in educational background. All biochemists and physicists must be university graduates and those promoted to the higher grades would usually have a first or second class

honours degree, and the different qualities required by their work.

As regards the earnings of pharmacists in industry, the management side understood that their starting salaries ranged from £780 to £900 according to qualifications. The higher salaries quoted by the staff side for a 'departmental manager' were of little assistance, since those to whom those salaries were paid would be appointed for managerial and organising qualities different from those required in hospital employment. The management side could not accept that the increases in N.J.I.C. scales constituted a ground for a comparable increase in the salaries of hospital pharmacists. There had been no close parallel between movements in the two sets of scales.

Pharmacists eligible for employment in the hospital service were also eligible for the retail service, and they could and did move from one to the other. The circumstances and conditions of service differed in so many respects, however, that exact equivalence of remuneration was not appropriate and had never existed. It was pointed out that two-thirds of the turnover of the average retail pharmacist represented counter trade—namely the sale of cosmetics, tooth-paste and the like, and one-third Health Service work. The turnover of a retail pharmacist could not therefore be compared with the "turnover" of a hospi-

tal pharmacist. The scales agreed in the hospital service had had regard among other relevant factors to what was known of the situation in retail pharmacy. The management side believed that the 3 per cent, would keep the hospital service in broadly the same position as existed previously and that the comparative attractiveness of hospital service had not been seriously reduced by the latest increase in the N.J.I.C. rates.

There was a general shortage of pharmacists and the hospitals got a fair share of those who were available. The management side did not think there was very much loss due to emi-

gration.

In the submission of the management side, Award No. 2916 had established a fair structure for hospital pharmacists, and nothing had occurred in the short period since its publication in July 1962, to justify setting it aside and carrying out a fundamental revaluation. The management side could see no reason why hospital pharmacists should be treated as an exception to the general pattern of salary increases in the National Health Service.

It was estimated that the total annual cost of acceding to the staff side's claim would be £325,000. The cost of the management side's offer of 3 per cent. was estimated to be £54,000.

BRANCH EVENTS

SOUTH-EAST LONDON

Chief Pharmacist as Chief Guest

THE annual dinner and dance of the South-east London Chemists' Association, held on February 6, was attended by about 330 members and guests. Chief guests were Dr. H. Davis (chief pharmacist, Ministry of Health), Mr. E. A. Brocklehurst (a member of the Pharmaceutical Society's Council) and Mrs. Brocklehurst and Dr. G. R. Boyes (president, South-west London Chemists' Association) and Mrs. Boyes. Proposing "The Pharmaceutical Society," DR. DAVIS recalled his experience in retail and hospital pharmacy and in the academic field. Now, as a civil servant, he said, he had worked for many years in close liaison with the Society. It had been a happy relationship, and he paid special tribute to "Bill" Adams. Pharmacy was an "Bill" Adams. Pharmacy was approaching a most significant stage. New legislation for the control of medicines was contemplated. A single comprehensive measure would replace existing Acts, and its success would depend on individual pharmacist members, on branch committees, and on the Society itself. Responding for the Society, MR. BROCKLEHURST said that Dr. Davis had been a distinguished chairman of the Conference, in which office he had been preceded by Dr. Boyes, another guest. Proposing the toast of "The Association," DR. BOYES recalled that his first appointment had been as a junior assistant in the pharmacy of Jonah Milner, a founder member of the Association and, in 1922, the first chairman of the South-east Metropoli-tan Branch. Members of the Branch and Association, he said, had striven

to maintain high standards of service to pharmacy and to the public. Speaking of Mr. W. A. Howard, Dr. Boyes said he had been engaged for some years in homeopathic manufacturing and dispensing. In the sense that homeopathy was concerned with minute doses, there was nothing homeopathic about the manner in which he had discharged his duties as president of the Association.

MR. HOWARD responded from the chair and presented to Mr. Brockle-hurst a cheque for the Society's Benevolent fund, the proceeds of a function held towards the end of 1963. The dinner was followed by a cabaret. A collection for Oxfam met with a gener-

ous response.

BRISTOL.

Film and a Talk

MEMBERS of the Bristol Branch of the Pharmaceutical Society were shown the film "Enovid" at their January meeting. Afterwards a member, MR.
H. C. B. THOMAS (chief pharmacist,
Manor Park hospital, and chairman,
Bristol Branch, Guild of Public Pharmacists) spoke on "Ourselves." Thomas described pharmacists as being, in general, introverts and individualists. The profession would benefit greatly from more personal contact, particularly at branch level. He believed the Society's present difficulties arose largely from its having been founded by employers for their own protection. To ensure that it was run for and by all pharmacists, he suggested that each member should have two votes in elections for Council, one for candidates in a specialist list, and the other for candidates in a regional list.

and bart in PARLIAMENT

BY A MEMBER OF THE PRESS GALLERY, HOUSE OF COMMONS

IN a written reply on February 5 Mr. HENRY BROOKE (Home Secretary) provided Mr. W. Clark with the details concerning the circular letter asking questions on shop hours addressed to more than 100 national bodies representing shopkeepers, trade unions, consumers and local authorities. The circular asks if the recipient favours the repeal of all the controls on closing hours contained in the Shops Act, and whether a shopkeeper should be allowed to choose his own half-day and thus perhaps facilitate the introduction of a five-day week. If, however, it was considered that all controls on closing hours should not be repealed, the question is asked whether the Act should not be modified to allow early closing on any day of the week; and whether small shops with few employees (say about four) should be allowed greater freedom regarding the evening closing hour than the trader with a larger labour force. The Home Secretary has asked for replies from various bodies by February 28. To a number of other questions he seeks replies "if not before February 28, so soon as possible afterwards." The circular mentions that Sunday trading was being considered by the Departmental Committee on Sunday Observance, views on which subject were not now sought. The National Pharmaceutical Union, Pharmaceutical Society of Great Britain and Pharmaceutical Standing Committee (Scotland) were amongst organisations to receive the circular.

Mobile Shops

MR. H. HYND was told on February 6 that the Home Secretary had no legislation in view specifically directed to mobile shops.

Amphetamine Tablets

To Mr. B. T. Parkin, who asked the Home Secretary if he would take steps to make illegal the manufacture and possession of tablets containing amphetamine derivatives and compounds unless they incorporated a proportion of ipecacuanha, or other emetic, sufficient to operate if any quantity was taken above that of a medical prescription, Mr. Brooke gave a written reply on February 6. He understood that adding an emetic in useful quantity might render the tablets unsuitable for legitimate medical use, but he would further consider the suggestion.

Manufacturers' Prices

MR. A. LEWIS received a short "No" on February 6 when he asked the Minister for Industry and Trade if, before introducing legislation to abolish Resale Price Maintenance, he would take legislative action to control manufacturers' prices.

A written answer to MR. A. E. ORAM on the same date considering amendment of the Sale of Goods Act said he would take the Consumer Council's views fully into account.

A Minister's Post-bag

MR. WINGFIELD DIGBY asked the Minister for Industry and Trade about

the annual value of resale price maintained goods and the average retailer's margin. Mr. HEATH, in a written reply on February 6, said that, in the year ended September 1963, retail sales of goods subject and not subject to resale price maintenance were "broadly £5,000 millions and £8,000 millions respectively." It was not possible for him to ascertain the average retail margin on the whole field of goods subject to resale price maintenance. He told Mr. T. SWINGLER that he had received about 600 communications on the subject since his announcement of the Government's intention. Those from traders—about three-quarters of the total—were mostly opposed to the abo-lition of R.P.M. Those from other members of the public were mainly in favour of the Government's proposals. Mr. R. Gresham Cooke wanted to know if the Minister, when drafting the new Bill, would take into account the desirability of allowing the owner of a product identified by his trade mark or brand name to stop distributors from making misrepresentations about it or using it as a loss-leader. Mr. HEATH in his written reply on the same day said that, in drafting the Bill, he was taking account of all relevant considerations.

Manufactured Goods Prices

MR. A. F. HOLT was told by MR. E. D. L. DU CANN (Minister of State, Board of Trade) that the Minister would not introduce legislation to set up a price office, to which all manufacturers with a turnover of over £2 millions per year would be obliged to send their price lists for information and publication and so ensure that swift remedial action, in the form of tariff cuts and action against price rings, could be taken when necessary.

Resale Price Maintenance

Mr. A. Lewis asked the Minister for Industry and Trade on February 6 the names of the organisations representing the retail traders' organisations which he interviewed prior to making the Government's announcement on the abolition of Resale Price Maintenance and how many meetings were held before this announcement was made. Mr. Heath said that evidence was received from over 70 organisations during the Board of Trade inquiry, including many associations representing retailers. Evidence from individual manufacturers was also collected. Since the inquiry was confidential he could not give further details. MR. STONE-HOUSE: "In view of the fact that many opponents of R.P.M. are not aware of the arguments in favour of its being abolished, will you consider releasing some details of the investigations you have made in your Department without revealing confidential facts?" MR. HEATH: "As the evidence was given to the Department on the basis that it would not be published and was confidential so that the firms and associations felt themselves in those circumstances free to give evidence, I do not think it would be proper to try to extract parts of the information.

MR. E. FLETCHER asked Mr. Heath whether he was aware that his announcement on resale price maintenance had created uncertainty among manufacturers and traders as to whether Section 25 of the Restrictive Trade Practices Act was still enforceable. The Minister replied that Section 25 of the Restrictive Trade Practices Act, 1956, remained the law until it was amended or repealed. "This answer should remove any uncertainty on that point."
MR. FLETCHER: "There is mounting confusion among manufacturers, shopkeepers and the public as to whether resale price maintenance is still operative. Will you tell us when the Bill will be introduced and when you expect it to become law?" Mr. HEATH replied that it did sometimes happen that laws were not strictly kept but that did not alter the fact that the law was in existence and could be enforced. He added: "We shall adhere to the timetable for the Bill which has already been announced. Obviously I cannot give an indication as to when the House will conclude its deliberations on it.

Safety Precautions

Mr. Parkin asked if the Home Secretary on February 10 was aware that the stage in the large-scale manufacture of scheduled drug tablets most vulnerable to organised theft was where components emerged as tablets not yet counted or assessed and where there was a variation of up to 4 per cent. in quantities expected to produce 100,000 tablets; and whether he would seek powers to supervise manufacturers' own security measures at this point and to consult with them as to the effectiveness of security measures at other points. Mr. Brooke replied: "I understand that many manufacturers of tablets apply weighing as well as counting procedures at this stage and that their general methods of control obviate the possibility of organised theft. already asked the pharmaceutical industry to review their precautions to ensure that such drugs do not get into the wrong hands."

'COMPANY NEWS

G. D. SEARLE & CO., LTD.—Mr. A N. E. Waldron has been appointed director of marketing.

W. J. BUSH & CO., LTD. — Dr. R. A. Gregory, B.Sc., F.R.I.C., A.M.I.Chem.E., has been appointed managing director as from February 1 in succession to Mr. A. J. McIntyre, who will have completed forty-five years' service on his retirement in June from the boards of the company and its associates.

CRODA ORGANISATION, LTD.—Mr. G. R. Hembrough has been appointed managing director of Croda (Lcek), Ltd., and its selling associate company, Croda Edible Compounds, Ltd. Mr. Hembrough who has been on the boards of those companies for some years, has been the director in charge of the Leek works since 1960.

BEECHAM GROUP, LTD. — The directors intend to recommend a one-for-one share bonus, the new shares ranking for the final dividend in respect of the year ending March 31. The directors have notified share-

holders that the trading results for the first nine months are materially in advance of those for the corresponding period in the previous financial year.

February 15, 1964

A. BOAKE, ROBERTS & CO., LTD. — Mr. R. G. Mason, B.Sc., A.R.I.C., has been appointed assistant managing director. Mr. Mason joined the company in 1938 and for many years was chief development chemist until appointed general works manager in 1959. He became a director in February 1960 and was appointed to the board of A. Boake, Roberts & Co. (Holdings), Ltd., in January 1961.

BUSH, BOAKE, ALLEN, LTD. — Albright & Wilson, Ltd., have formed a wholly-owned subsidiary company, Bush, Boake, Allen, Ltd., to co-ordinate the activities of three members of the Albright & Wilson group: W. J. Bush & Co., Ltd., A. Boake, Roberts & Co., Ltd., and Stafford Allen & Sons, Ltd. The aim is to achieve rapid expansion and secure a larger share of world trade. First directors (all directors of the constituent companies) are Messrs. E. L. Bush (chairman), B. White (managing director), W. E. K. Piercy, R. K. Allen, R. G. Mason and Dr. R. A. Gregory. There is no change in the eurrent trading arrangements of the three companies. Each will continue to sell and distribute its existing range of products.

BUSINESS CHANGES

MR. R. H. MILES, M.P.S., has opened a pharmacy in St. Mary's Street, Painswick, nr. Stroud, Glos.

MR. R. THURSBY, Salisbury, Wilts, has transferred his High Street, pharmacy to No. 34 (from No. 38).

SWIRES PHARMACY (LUDDEN-DEN FOOT), LTD., 8A Bank Buildings, Burnley Road, Luddenden Foot, Halifax, has closed. The pharmacy has been under the management of Mr. J. C. Bramley, who is retiring. It has been in existence for seventy years.

L. R. B. PEARCE, LTD., have removed to 125 High Holborn, London, W.C.1 (telephone: Holborn 7722). At that address also will be located the sales office for the range of chemicals being manufactured by the associate company, Wimborne Chemicals, Ltd., Corfe Mullen, Dorset.

Appointments

CUSSONS SONS & CO., LTD., Manchester, have appointed Mr. V. N. Thurm their advertising manager.

LEICESTER CO - OPERATIVE CHEMISTS, LTD., have appointed Mr. W. E. Long their superintendent chemist.

PERSONALITIES

MR. R. YOUNG, M.P.S., of Young's of Nantwich, Ltd., has been elected vice-president of Nantwich chamber of trade.

MR. L. H. KERFOOT (a director of Thomas Kerfoot & Co., Ltd., Bardsley, Lancs) has become engaged to Miss Susan E. Simpson, Disley, Ches.

MR. S. G. MOTE, M.P.S., Ashtead, Surrey, a member of Leatherhead golf club and the South London and Surrey

Golfing Society, is one of the qualifiers in the London *Evening News* amateur golf tournament.

MR. D. CURRIE, who is chief pharmacist, Foresthall Hospital, Glasgow, and a member of the Western Regional Board, has been appointed a member of the Highland Transport Board by the Secretary of State for Scotland. Mr. Currie is president of the Clerical and Administrative Workers' Union and a member of the General Council of the Scottish Trades Union Congress.

MR. FERNLEY WALLIS, a pastchairman of the Plymouth Branch of the Pharmaceutical Society, has completed fifty years as a pharmacist, and another former branch chairman, MR. T. B. HARVEY, who is also a former city councillor of Plymouth, completes fifty years during February. The Branch is holding a dinner in honour of the double occasion.

MISS M. E. STEVENS, who is senior lecturer in pharmacognosy at the School of Pharmacy, Brighton College of Technology, is to retire at the end of the present term. Miss Stevens joined the staff of the School in 1925, when the Head of the School was Mr. H. B. Mackie. Arrangements are being made for a retirement dinner in her honour, to be given by her colleagues on the staff, on May 1.

DR. R. A. GREGORY, the new managing director of W. J. Bush & Co., Ltd., has been with the company since April 1963, when he was made a director. He joined Albright & Wilson, Ltd., in the 1930's, and until 1961 was first technical director, then becoming joint managing director of Midland Silicones, Ltd., from which he transferred to the parent company, in which he was concerned with group planning.

DR. O. L. BRADY, B.A., D.Sc., F.R.I.C., has been appointed an Honorary Fellow of the School of Pharmacy, University of London. A statement by the Council of the School says that the appointment has been made in recognition of Dr. Brady's many and considerable services to the School, both academically since the institution of the degree of Bachelor of Pharmacy by the University of London in 1925, and as honorary treasurer of the School since July 1948.

MR. JOHN HOWARD, who was elected Captain of the Irish Chemists' Golfing Society on February 7 says he has followed his one hobby — golf—since childhood and now plays off a fifteen handicap. Married, with two children, he lives in Ranelagh, Dublin. Mr. Howard qualified as a pharmacist in 1932 and worked in Kanturk and Tipperary before moving to Dublin. For the past eighteen years he has been Irish representative of Imperial Chemical Industries, Ltd. Mr. Howard has been a member of the Society for the past seventeen years.

ALDERMAN J. ALLEN JONES, M.P.S., 21 Moor Lane, Great Crosby, Liverpool, receives the freedom of the borough of Crosby on March 23. He is only the third to receive the honour since the borough was established in 1937 (first was Earl Alexander of Tunis in 1954). Mr. Jones opened his phar-

macy in Moor Lane in 1922 and later opened two branches. He entered local government in 1932, has been an alderman since 1937, and was mayor in 1946-47. Alderman Jones is president of Crosby chamber of trade and of the local Rotary Club. He is a member of the Lancashire Pharmaceutical Committee.

MR. E. A. BURFOOT, B.Sc., F.R.I.C., M.P.S., D.B.A., who is works direc-



tor of Riker Labora tories, Loughborough, elected been chairman o f the Nottingham Section of the Society o f Chemical Industry for the period 1964-66. Mr. Burfoot has been in charge of production a t Riker Labora-

tories for ten years, he is also a member of the chemistry advisory board of Loughborough College of Technology and was for several years actively associated with Loughborough Productivity Association.

MR. JAMES C. M.B.E., B.Pharm.,



PARKINSON, Ph.D., F.P.S., F.R.I.C., has been appointed deputy secretary of the Pharmaceutical Society. Dr. Parkinson has been since 1954 head of the School of Pharmacy, Brighton College of Technology. He comes of a family of pharmacists, his grandfather

having established in 1820 a retail pharmacy in Blackburn, Lanes, that was carried on by the family until his father closed it in 1935 to go into-management at Sheffield. Dr. Parkinson's own pharmaceutical apprenticeship was spent in the Sheffield pharmacy of G. T. W. Newsholme. He qualified from Nottingham University in 1948 after an interruption of studies due to war service in the Parachute Regiment. Dr. Parkinson gained his Ph.D. degree in London in 1954 with a thesis on "The Effect of Temperature on Bacteriostasis." He is an examiner for the Pharmaceutical Society and was chairman of panel, 1961-62. He was a member, 1954-60, of the British Pharmaceutical Codex formulary subcommittee, and is currently a member of the British Veterinary Codex formulary subcommittee and galenical and tablets-and-capsules committees of the British Pharmacopæia Commission. In 1960 he was the recipient of one of the first English Speaking Union travel grants for technical teachers to visit the United States. He is a member of the Pharmaceutical Society's Education Committee. A profile of Dr. Parkinson was presented in "Figures in the Pharmaceutical World" (C. & D., June 20, 1959, p. 658).

MR. G. S. BURNETT, who has controlled Leicester Co - operative

Chemists, Ltd., since was established in 1931, has just retired. Mr. Burnett began his career with the Co-opera-tive movement in the Barnsley Society's phar-macy departmacy ment in 1922, 1928 and in appointed was superin-



tendent chemist with the Ashton-under-Lyme Society. Three years later he was offered the opportunity of pioneering a pharmacy department for the Leicester Society, which was opening its first pharmacy in Hallam Crescent, Braunstone. Realising that the success of the venture depended on opening a branch in the eity centre, he secured premises at the Society's central store in High Street. It soon became necessary to open other branches in the city's busiest suburban shopping centres. there are eleven branches as well as the original section at the store. Annual turnover is in the region of £250,000. Mr. Burnett was also responsible for opening the Society's optical centre in Union Street. He is a past-member of the city's Pharmaceutical Committee, and has served on a number of subcommittees of that organisation.

MR. S. M. BOSTOCK, who is believed to be Cheshire's oldest practising pharmacist (he is eighty-two), claims that he is being "bulldozed" out of his business at Bull Ring, Northwich, by the local council. The council have compulsorily purchased his premises to make way for a new road. Mr. Bostock has traded at the same shop for fifty-eight years and he states: "New premises in the council's new town centre scheme will cost about £30 a week, and at that price you aren't working for yourself anymore." Mr. Bostock served thirty-five years on the Cheshire Insurance Committee and received a cigarette case on his retirement. He is vice-president of Northwich Victoria football club, a founding member of Sandiway golf club and a past-captain of Manchester Pharmaceutical golf club.

DEATHS

EVANS.—J. C. Bloomfield writes:—The sudden and unexpected death [on February 3 (see C. & D., February 8, p. 127)] of Councillor Leonard Evans stunned his many friends, and all were deeply shocked by the tragic news. On his retirement from business he devoted himself unsparingly to his civic duties, and worked tirelessly for the elderly and less fortunate members of the community. His service to the sick and needy will always be remembered with gratitude, and many in Portsmouth mourn the passing

of this sincere man. His greatest achievement was his election as Lord Mayor in 1959, and we shall always recall with pride the outstanding contribution to the city that both he and his wife made during their year in office. Above all else Leonard Evans was a family man, being devoted to his dear wife and daughter, and to them on behalf of all his pharmaceutical colleagues I extend our heartfelt sympathies in their bereavement.

FARR.—On January 9, Miss Minnie Farr, 7 Rosparoch Gardens, Heamoor, Penzance, Cornwall. Miss Farr qualified as a chemist and druggist in 1898 and retired in 1952.

FISHER.—On January 28, Mr. John Sydney Fisher, M.P.S., 25 Victoria Street, Holmfirth, Huddersfield, Yorks, aged seventy-five. Mr. Fisher was formerly in business in Holmfirth.

HARDMAN.—On January 10, Mr. James Chevalier Hardman, Oona Vale, Anthonya Avenue, Parkstone, Dorset. Mr. Hardman qualified as a chemist and druggist in 1898 and retired in 1936.

INGLIS.—At Peel Hospital, Galashiels, Selkirks, on January 31. Mr. James Inglis, M.P.S., Lyndon, Poynder Place, Kelso. Mr. Inglis qualified in 1921.

JONES.—On January 15, Mr. Henry Jones, 14 Calbourne Road, London, S.W.12. Mr. Jones qualified as a chemist and druggist in 1921 and retired in 1960.

SPETCH.—On January 12, Mr. John Henry Spetch, M.P.S., 18 Lings Lane, Chelmondiston, nr. Ipswich, Suffolk. Mr. Spetch qualified in 1921.

WOOD.—On February 7, Mr. Tom Wood, M.P.S., Edenfield, Manchester Road, Tytherington, Macclesfield, Ches. Mr. Wood qualified in 1910. After having a pharmacy in Macclesfield for many years, Mr. Wood retired about four years ago.

Mr. E. Ashton Hebron (president, Cheshire County Pharmaceutical Committee writes:—Tom Wood first joined the old N.H.I. Pharmaceutical Committee in 1928. Since that time, he had unbroken service and had been secretary for the last fourteen years. His knowledge of pharmaceutical matters and his experience of the National Health Service and its committees has endeared him to all pharmacists in Cheshire and his services will be greatly missed.

N.H.S. STATISTICS

In ENGLAND during September 1963, 14,276,863 prescriptions (9,943,402 forms) were dispensed at a total cost of £6,442,156. Average cost per prescription, 108·3d.

In London during July 1963, 1,240,767 prescriptions (865,156 forms) were dispensed at a total cost of £516,547. Average total cost per prescription was 99-91d. of which ingredients amounted to 81-12d. During August 1963, 1,081,539 prescriptions (747,851 forms) were dispensed. The total cost was £457,556. Average cost per prescription was 101-53d. of which the ingredients amounted to 82-70d.

INQUESTS

Clearing House for Side Effects?—A clearing house for information about the effects of drugs was suggested by the North Worcestershire coroner at an inquest on February 11. Professor J. M. Webster (pathologist) told the coroner that the drug Dindevan, had been a factor in the death of Mr. William Batchelor, aged sixty-two, on whom a verdict of death from natural causes was recorded. In reply to the coroner, Professor Webster said there was no organised means of communication between doctors and drug manufacturers.

MAKERS' ACTIVITIES

Record Number of Entrants.—A contest in the Competitors Journal, the only prize for which was one of the new Lady Sunbeam bandbox hairdryers, brought the record number of 2,843 entries for that type of contest. Winner was Mrs. O. L. Waddington, Winwick, nr. Warrington, Lancs.

Room to Expand.—Satinex (Great Britain). Ltd., have purchased from the Air Ministry the main site of Hawarden Aerodrome, North Wales. The site comprises 41 acres of land, with permanent buildings totalling over 160,000 sq. ft. fed by main services, including a system of first-class roadwork covering the site. Purchase of the site will enable the company to continue its programme of expansion.

Prizes for Writing Advertisements.—For writing advertisements on the model of some examples set out in a booklet prospectus, pharmacists and their assistants are being offered 21s. for each entry published. Sponsors of the exercise are Bayer Products Co., Winthrop House, Surbiton-upon-Thames, Surrey. Subject of the advertisements is Actal (dyspepsia relief tablets), and entrants are required to write an "actuality." The requirements are set out in greater detail in the booklet.

Representing Britain. — A 10-kilo fluid bed dryer manufactured by Manesty Machines, Ltd., Speke, Liverpool, 24, has been chosen by the Central Office of Information, in conjunction with the Foreign Office, for exhibition at a "What's New in British Industry" Exhibition at Prague, Czechoslovakia, beginning February 8. Representatives of the company will be present and the company has prepared literature in Czechoslovakian and English for distribution at the exhibition.



CHAMPION SALESMAN: The managing director of New Hygiene, Ltd. (Mr. A. R. Mackeson), presenting the company's 1963 champion salesman cup to Mr. C. G. Hurst the Midlands' area manager.



Throat Lozenges

THE NEW DISPLAY OUTER MAKES EXTRA SALES

Each TYROZETS display outer contains 12 vials each of 12 lozenges. The retail price is 2s 6d per vial. TYROZETS lozenges contain 1 mg. tyrothricin and 5 mg. benzocaine.



EXCITING THINGS ARE HAPPENING TO NIVEA! gayest youngest liveliest advertising ever!



A whole new future is opening up for Nivea. New products! New packs! New advertising! Today Nivea has the modern appeal that will lift your sales to new heights, too!

Press and TV advertising starts NOW!

See these whole page advertisements in glorious colour in Woman's Mirror, Honey, She, Queen, Vanity Fair. Many more advertisements like these for Nivea and the whole Nivea range during Spring and Summer.

And fabulous 30 second commercials in the London, Midlands and North TV areas.

SOUTHALLS (SALES) LTD - ROCKVILLE ROAD - SALTLEY - BIRMINGHAM 8

NEW PRODUCTS AND PACKS

PHARMACEUTICAL SPECIALITIES

Measured-dose Skin Spray.—Roussel Laboratories, Ltd., Columbus House, Wembley Park, Middlesex, announce that their Hydrocortisyl skin spray is now metered to deliver a measured dose lasting 0.3 sec. Each 30-mil pack contains 100 mgm. of hydrocortisone as a micronised powder.

Change of Pack.—Ortho Pharmaceutical, Ltd., Saunderton, Bucks, announce that their speciality Nutri-sal douche formula, for the promotion of fertility, is now available in a pack comprising a bottle containing enough granules for six douches, the lid of the bottle forming a measure. A level capful of granules is added to a quarter-pint of lukewarm water and used as a douche after being completely dissolved and cooled to body temperature. The new pack replaces previous types.

COSMETICS

Cosmetic Colours from the Far West.—Helena Rubinstein, Ltd., 3 Grafton Street, W.1, have looked to Colorado for their latest creations in make-up. The aim is to enable the freshness of wide-open spaces to be combined with "the sophistication of great cities." A new foundation, Coverfluid Colorado tan, is described as "golden, light and warmly flattering." A new Colorado Pink lipstick is tinted a "bright, luminous desert pink."

SUNDRIES

Baby Pants and Feeders.

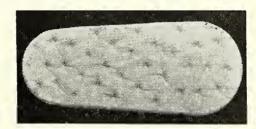
—Baby Life Products, P.O.
Box 6, Portland House, Ash-



ton-under-Lyne, Lancs, have launched the first groups of items of a new series of baby products. The Baby Life pants, presented in pastel-coloured packs. comprise seven models: Landy N1 and N5 (rose-scented, lanolin-impregnated, and satin-embossed); Zandy N10 and N10X (with picot edged suede elastic round waist and legs); Candy N20 and N20X (rayon-covered plastic with elastic around waist and legs), all in large and extra-large sizes; and Dandy N60

(large-size frilly nylon-covered pants with suede elastic around waist and legs). The Baby Life range of infant feeders includes twenty-seven styles "in an almost infinite variety of cut and colour." A revolving counter stand enables customers to choose and serve themselves from simple bibs and nursery patterns, cut-out animal shapes or sleeved-and-pocketed overall styles designed in Sweden.

Disposable Nappies Improved. — Southalls (Sales), Ltd., Bessemer Road. Welwyn Garden City, Herts, announce



that Golden Babe disposable nappies are now softer, more absorbent and net-covered. The nappies are now hygienically packed in transparent polythene bag.

Veterinary Aerosols.—Osmond Aerosols, Ltd., a subsidiary of Osmond & Sons, Ltd., Grimsby, have introduced, under the trade-mark Vetex, a range of aerosol products including foot-rot, ringworm, maggot and antiseptic treatments, red and blue sheep markers, an

anti-feather pecking spray, a poultry insecticide, an anti-fight spray for pigs, and an orphan lamb aerosol. The containers have a three-colour label designed to permit overprinting of the dealer's own name and address.

In Redesigned Pack.—A newly designed pack for Dixcel pink facial tissues, with anemones as the floral motif, is announced by Peter Dixon Group. The pack contains 150 tissues and incorporates a hinged and partially cut



flap that can be closed when not in use to seal the contents against dust and germs. Distributors to chemists are Bronco, Ltd., Atlas Works, Berkshire Road, London, E.9.

PHOTOGRAPHIC NOTES

Comprehensive Scottish Service. — Hamilton Tait, Ltd., Penicuik, Midlothian, offer a processing and finishing service for Kodacolor, Ilfocolor, Gevacolor, Agfacolor and Ferrania-color negative and Ektachrome reversal films. They also undertake to make Transcolor prints and 35-mm. duplicates from all types of transparencies and 35-mm. transparencies from all colour negatives.

Sole Distributors.—Mayfair Photographic Suppliers (London), Ltd., 166 West End Lane, London, N.W.6, have been appointed sole United Kingdom distributors for the Petie range of subminiature cameras manufactured by Walter Kunik, K.G., Frankfurt-on-Main, West Germany, and for Tuxi and Petietux film. First importations are being distributed shortly, and a comprehensive after-sales service is being introduced.

Slide Mounting Kit.—The Combi-Quick is a Danish slide-mounting process marketed in Britain by David Williams (Cine Equipment), Ltd., 5 Glasshouse Yard, London, E.C.1. It is available in 24 x 36 mm. and 4 x 4 sizes. When mounting transparencies with the Combi-Quick device, accuracy is assured in aligning the slide by slots on the transparency mask, and by the fine tooling of the mounting jig. Mounted transparencies are protected from dirt, dust, etc., and fit all slide changers and slide boxes (the total thickness is 3.6 mm.).

A Versatile Flash-gun.—A new compact version of the Isi flash-gun is now available from Agfa, Ltd., 27 Regent Street, London, S.W.1. Fitted with



either standard 3-mm. synchronisation plug or accessory shoe contact, the flash-gun uses a 15-volt hearing-aid battery and has an exposure calculator on the back. A feature is that the unit accepts both capless and A.G. bulbs without adapter.

TRADE NOTES

A 250-tablet Pack. — Boots Pure Drug Co., Ltd., Station Street, Nottingham, announce the introduction of a 250-tablet pack of Dijex.

A 1,000-tablet Pack.—Ferro-Mandets hæmatinic tablets are now available in an additional pack of 1,000 from Lederle Laboratories division of Cyanamid of Great Britain, Ltd., Bush House, Aldwych, London, W.C.2.

A Company's New Symbol.—County Laboratories, Ltd., Beecham House, Great West Road, Brentford, Middlesex, have adopted as their symbol a batch of front-door keys, ten in number, "representing ten of Britain's best known names in the toiletries markets."

A Discontinued Size.—Abbott Laboratories, Ltd., Queenborough, Kent, announce the immediate withdrawal of the 4-oz. pack of their cough preparation Tecaldrine. The 40-oz. dispensing pack remains available. Calcidrine and Norisodrine syrup, continue to be supplied in both 4 and 40-oz. bottles.

"Own Name."—Preparations including paracetamol, A.C.D. vitamins, vitaminised iron and yeast and indigestion tablets, family vitamin tonic and calamine cream are available in any of seven different packs from Arthur H. Cox & Co., Ltd., Brighton. Chemists are thus able to "associate their name with preparations of distinction."

Appointed U.K. Agents.—Cambrian Chemicals, Ltd., Macks Road, London, S.E.16, have been appointed United Kingdom distributors for the enzymes and biochemicals made by the Miles Chemical Co., Elkhart, Indiana, U.S.A.—Kingsley & Keith, Ltd., 38 King William Street, London, E.C.4, have been appointed U.K. distributors by Deutsche Ajinomoto for amino acids made by Ajinomoto in Japan.

Marketing Changes.—The Plantoids range of horticultural products (Plantoids, Tomatabs, indoor Plantoids and Plantoids chrysanthemum, rose, sweet pea and dahlia specialities) are now available from Eucryl, Ltd., on their usual terms and conditions to wholesalers. Packs for 1964 are being revised and made more attractive and an advertising campaign starts in the Spring.

"Dispensers" for Cosmetics.—After restyling the packaging of many of their products, Dorothy Gray, Ltd., 8 Grosvenor Street, London, W.1, have introduced "dispensers" for their best and fastest selling lines. Two now available are for holding six packs of Dorothy Gray hand cream or six Bright Mist hair containers. The "dispenser" is sent only on a minimum order of six products.

Price and Name Changes.—Cussons Sons & Co., Ltd., Kersal Vale, Manchester, have increased the prices of their talcum powders, and changed the names of two of them. "Linden Blossom" becomes "Linden" and "Lilac Blossom" becomes "Lilac Mist." Principal reason for the price increase is the reformulation of the talcs to include improved perfumes and the deodorant Deolidex, claimed to

ensure "day-long freshness and longerlasting perfume fragrance." All the talcum-powder packs excepting "Imperial Leather" and "Damask Rose" have been restyled.

At an exhibition in connection with the Electrical Development Association's Conference, February 18-20, Dreamland Electrical Appliances, Ltd., 30 High Street, Southampton, Hants, are introducing a bedside accessory for every electric blanket owner. It is the Dreamland Memorie time switch, believed the first of its kind specially designed for use with electric blankets. The device may be set to switch on one or two electric blankets at a pre-determined time, either regularly or occasionally as required. Unless switched off manually beforehand it switches off the blanket after three hours' heating, a neon light fitted on the Memorie indicates the correct time, day or night.

Delivery of "Smalls" to Europe.-A new, direct delivery service to and from Europe is being operated by Beck & Pollitzer Road Transport, Ltd., 180 Lambeth Road, London, S.E.1, and Maasveem, Rotterdam, Holland. Con-signments down to 15 kilos in weight will be carried to and from towns and cities in the British Isles direct to destinations in Western Europe. Customs formalities at port of entry will be eliminated because the operators have their own Custom-approved warehouse in London. Packing and handling costs will be reduced because parcels may be stowed into trailers without the need for expensive containers. Cost of sending, say a 15-kilo parcel from London to Rotterdam will be 27s. 6d., including all documentation charges, for a load of 1 ton on the same journey £13 10s. including documentation.

Discontinued.—Colgate-Palmolive, LTD., 76 Oxford Street, London, W.1, are discontinuing the issue of Halo sachets and bottles, Lustre creme tubettes, and Cue hairdressing. — EVANS MEDICAL, LTD., Speke, Liverpool, 24, have ceased to supply Coscopin lozenges now that Coscotabs have been made available. Coscotabs contain the same amount of noscapine (25 mgm.) as the lozenges but are chewable, pleasanttasting tablets.—HORLICKS, LTD., pharmaceutical division, Slough, Bucks, have withdrawn the 1-lb. jar of Rubriment cream.—E. R. SQUIBB & SONS, LTD., Regal House, Twickenham, Mid-dlesex, are discontinuing the issue of Moditen tablets, 0.25-mgm., when present stocks are exhausted. Pædiatric dosages, they say, are better covered by the elixir (0.5 mgm. per mil), adult dosages being adequately covered by the 1-mgm, tablets. Manufacture of 5-gm. packs of all Adcortyl topical preparations has also ceased, and supplies are available only while stocks last. The 5-gm. packs of Adcortyl-A in Orabase and Tri-Adcortyl ointment continue to be available.

Linked "Shaver Centres."—A scheme to organise sellers of electric shavers into a group operating a common sales and service policy is put forward by Herrmann Shaver Services, Ltd., 111 High Holborn, London, W.C.1. During the past fifteen years the company's managing director (Edgar Herrmann) has developed, he claims, the largest and most profitable electric shaver centre in the world. Under the scheme he now puts forward each dealer will be recognised as a "Herrmann Appointed Shaver Shop" (HASS). One will be selected in each town or area with between 10,000 and 200,000 inhabitants. Primary aim is to reproduce in a member's shop the selling methods that have proved successful in building Herrmann's Shaver Centre. A member undertakes to give Herrmann Shaver Services, Ltd., all his shaver business, to supply a monthly report and act on the company's advice. The group will be advertised nationally at the expense of the parent company. Retail postal inquiries received at Holborn will be referred to the local HASS member. To launch the project appointed members are being invited to attend a meeting and luncheon in London probably early in March. Questionnaire forms to be completed by intending members are available from the company.

Bonus Offers

CUSSONS, SONS & CO., Kersal Vale, Manchester. Talcum powders. Twelve invoiced as eleven. Until Friday before Budget day.

RICHARDS & APPLEBY, LTD., York House, Westminster Bridge Road, London, S.E.1. Terminex anti-smoking capsules. Six invoiced as five. Until March 7.

Information for Manufacturers

Iodine-test Reagents.—Hopkin & Williams, Ltd., 14 St. Cross Street, London, E.C.1, offer iodine-free reagents for determining sub-microgram quantities of iodine in serum and tissue by a method depending on the iodine-catalysed reduction of ceric ions by arsenite.

Adviser on Merchandising.—
An advertising agency, Benton & Bowles, Ltd., 197 Knightsbridge, London, S.W.7, have taken the unusual step of appointing as their director of merchandising a man with wide retail experience. He is Mr. Sampson, who previously held a similar post with a supermarket chain.



FOAM-BATHER AT FIVE: In home experiments to find out how much André Philippe bubble bath was needed to produce a suitable quantity of foam for a film advertising the product, Fifi, the five-year-old daughter of producer/director Mr. Donald Blakey, was so delighted with the foam that for a long time nothing would induce her to leave the bath.

Northern Ireland Pharmacists' New Hall

"TRIPARTITE" DINNER AS INAUGURATION

THE Council of the Pharmaceutical Society of Northern Ireland had a tripartite purpose in holding a dinner at its Belfast headquarters on January 30. So said THE PRESIDENT (Mr. Norman C. Cooper, M.Sc.). The first was to mark the opening of its

the opening of its new lecture hall, the second to honour two long-serving members, and third to mark the completion of the C. W. Young Memorial Scholarship fund.

Northern The Ireland Minister of Home Affairs (the Rt. Hon. William Craig, M.P.), was present to respond to the toast of the Government, proposed by MR. J. KERR (chairman of the House Com-mittee). Mr. Kerr expressed the opinion that pharmacists were not receiving adequate remuneration un-

der the health services. In an economy that was expanding its production and raising its standard of living by 3-4 per cent. each year, pharmacists had fallen behind by 20 per cent., with no overall increase in professional remuneration since 1958. Mr. Kerr congratulated the Government on its achievements in the fields of education, agriculture and the attraction of new industries.

In his reply, MR. W. CRAIG congratulated the Society on its new building, which he described as "a very fine hall—simple yet most effective." All the guests must be impressed by it, he

said.

The Northern Ireland Government had resolved, he went on, that at this particular point of the Province's history it would set its targets at a suitable level for the twenty-first century. "The programme on which we have embarked can, with the assistance of the people of the Province, create a society second to none. We must call upon Society itself to strive to do the things that have to be done."

Praise for Educational Progress

He knew from personal experience that the Pharmaceutical Society of Northern Ireland, in its own field, was conscious of the need to equip its members to play their full part in a modern society. "I am glad that you have ambitions of raising your educational standards to the highest possible level," Mr. Craig said. "I hope you will continue to strive, as you have in the past, to raise the standards and professional ability of all your members. "If we are all to perform our function satisfactorily we must be prepared to learn, and education must

occupy a prominent part in all our thoughts and activities."

In Northern Ireland there was no reason to be anxious, depressed or pessimistic because it was faced with opportunities for greater advancement



Northern Ireland's Minister of Home Affairs (Mr. William Craig) studies the menu. Flanking him are the president of the Society (Mr. Norman C. Cooper, M.Sc, right) and secretary (Mr. W. Gorman).

than its forebears had ever dreamed of. Happy relations existed between his Ministry and the Society and he expressed the hope that, in the challenge of the future, those relations would continue.

A Distinguished Lineage

The toast "The Pharmaceutical Society of Northern Ireland" was proposed by MR. W. F. PATTON, Q.C. (chairman of its Statutory Committee), who said that, while the Society was not an ancient one, it had a distinguished lineage. "In my lifetime there has been an almost untenable quantity of pain relieved and diseases cured by you and your fellows which our fathers and grandfathers could not even have contemplated curing," he said. "I believe that, hand in hand with the doctor, biologist and biochemist, you will be able to push back the frontiers of disease and the fears which possess so many of us. It is with that feeling of gratitude for what has been done and of hope for what you are going to bring for us in the future that I propose this toast."

Replying, THE PRESIDENT said that, since the granting of the Charter to the Pharmaceutical Society of Great Britain, successive generations of pharmacists had upheld the ethics of the profession, and "the State's trust in the profession has never been misplaced."

"Since 1948 the chemist has found himself in a whirlpool of advancing knowledge, with pharmacies packed with more and more complex drugs." In the near future the only way by which qualification as a pharmaceutical chemist could be achieved would be by university degree. "But I feel that pharmacists, as scientifically trained people,

could have been used to more advantage in the national health scheme. The wonder grows that such a small percentage of the national bill could meet the pharmaceutical services."

Toasts to Messrs. Henry F. Moore and Walter C. Tate, both past-presidents of the Council with more than thirty years' service each, were proposed by MR. H. W. GAMBLE, O.B.E., himself a past-president. Mr. Gamble said that Mr. Moore had qualified in 1911 and entered the Council meetings. Mr. Tate had qualified in 1917, joined the Council in 1933, and attended 176 out of a possible 181 meetings. On the Society's behalf he had attended two meetings of the British Pharmaceutical Conference—at Leeds in 1934 to invite the Conference to Belfast, and in 1935 at the Belfast meeting.

Replying on behalf of Mr. Moore and himself, Mr. TATE said he had enjoyed every minute of his service with the Society. Each president had carried out the motto of the Society: "Probitate Vigilantia et Arte." He thanked Mr. Gamble for the way in which he had proposed the toast and the assembled gathering for the way in which

they had received it.

The toast of the guests was proposed by MR. W. H. BOYD (a past-president). Replying on behalf of the guests DR. E. F. G. JAMES, F.R.C.P.I. (president, Northern Ireland Branch, British Medical Association) said the doctor relied on the pharmacist as a friend and adviser. Without the help of the pharmacist the National Health Service, which he regarded as the greatest exercise in Christian civilisation which the world had seen so far, would not be able to operate. He was confident that the co-operation between the professions would continue, and he congratulated the Society on its enterprise in erecting such a fine building and wished it continued prosperity.

MR. N. S. LEDLIE, a prominent member of the C.W. Young Scholarship Fund Committee, also responded.

Guests

Among the guests was Mr. Horatio Todd, O.B.E., J.P., M.P.S.N.I., the Society's first president in 1925. Others were Messrs. D. P. Boyle, L.D.S. (president of the Northern Ireland Branch, British Dental Association); M. Andrews (president of the Northern Ireland Branch, British Optical Association): W. McKinney, C.B.E. (chairman of the Northern Ireland Hospitals Authority); and G. D. Stewart (secretary of the Northern Ireland General Health Services Board); Mrs. A. S. G. Watson (president of the Ulster Chemists' Association); Messrs. W. J. Ranking sen. (a former treasurer of the U.C.A.); W. B. Rankin, Ll.B.; T. T. Houston (architect), and representatives of the Ministries of Home Affairs and Health and Local Government.

THE PRESIDENT thanked the secretary of the Society (Mr. W. Gorman) for his part in organising the function.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

What, No Pride?

SIR,—I was shaken to read in your issue of February 8 that the Pharmaceutical Society's Scottish Department Executive had sent a message of congratulations to a St. Andrew's House official, who deals with National Health Service matters. Just how low can some ALEX G. MURDOCH, people sink? Mintlaw, Aberdeens

Resale Price Maintenance

SIR,—On the evening of February 7 a deputation of local retail pharmacists. headed by Mr. F. McLoughlin, M.P.S. (chairman, Preston and District Branch, N.P.U.), met the Rt. Hon. Julian Amery, M.P., and later Mr. Alan Amery, M.P., and later Mr. Alan Green, M.P., at the Preston Conservative headquarters for a discussion of the proposed Bill to abolish Resale Price Maintenance. After explaining to both members the serious consequences of the Bill so far as retail pharmacists are concerned, it was agreed that the deputation should meet both Mr. Amery and Mr. Green again after publication of the Bill.

> F. M. DUFFY, Secretary, Preston, Lancs

SIR,—Resale Price Maintenance does not end with price-control. R.P.M. goods are mainly reserved to bona-fide wholesalers and retailers, or sold direct by the manufacturer to selected retailers. A great quantity of goods, mainly of the higher-priced articles, are being purchased by the public otherwise than from retail shops. Door-to-door salesmen, mail-order firms, discount houses and "spivs" of every description operate in housing estates and factories and business organisations. Abolition of R.P.M. would not merely mean price-cutting, but the complete disappearance of many items from shops. If this means "business efficiency," who is to service and repair the cameras, radio sets and electric razors in future? E. A. DARLEY, London, N.1

SIR,—Below is a copy of a letter from the chairman of the Toilet Preparations Federation, Ltd., to the President, Board of Trade.

Dear Mr. Hcath,

The vast majority of members of this industry, because of the nature of their business, effect their entire distribution in the U.K. through chemists, department stores and hairdressers. This policy is adopted because of the value of the personal service of the salesgirls for so many of the industry's products, and also because the public image given by such outlets is of immense value to these companies' export trade.

The benefits of the present arrangements that exist between these manufacturers and their retail outlets is not simply of advantage to the manufacturers, it is also of considerable advantage to the retail chemists on whom the efficient working of the Health Scheme depends, and it is of advantage to the department stores, whose high standard of display is, amongst other

things, an important element in this country's fashion leadership.

It should be stressed that the nature of the business referred to involves the retailer in stocking a wide range of items, few of which have a rapid turnover. In consequence, the retail margin allowed, taking into consideration the 25 per cent. purchase tax, is not excessive in relation to other industries.

Any legislation that deprives these members of the industry of the right to select their distribution pattern, could scriously jeopardise the financial stability of the chemists in this country and might have serious repercussions on the manufacturers' business in the U.K. This would add seriously to the many handicaps already facing this industry in expanding

their export trade.

The Toilet Preparations Federation urgc most strongly that as the public interest is already served by the wide range of prices at which the industry's products are available, any contemplated legislation designed to alter the present Resale Price Maintenance arrangements, must provide the right for manufacturers and retailers to make mutual arrangements aimed at protecting the present standards of the retail trade and the future of this industry's exports.

R. W. Murphy, Chairman, C. A. Williams, Secretary, Toilet Preparations Federation, Ltd.

Support for Withdrawal

SIR,—At a meeting of the East Kent Branch of the National Pharmaceutical Union held in Canterbury on February 5, the resolution of the Nottingham and District N.P.U. Branch (concerning the intention of members to give notice of withdrawal from the National Health Service if no settlement of our just claim has been reached by May 1) was discussed at length. The following resolution was passed unanimously:

IF no settlement of the chemist contractors' claim has been reached by May 1, 1964, this Branch will fully support any action—including withdrawal from the National Health Service—proposed by the N.P.U. Executive.

In addition, the three members appointed to attend the N.P.U. Branch Representatives' Conference on April 2 were instructed to support the Executive if the subject is discussed.

> W. A. BEANLAND, Secretary, New Romney, Kent

Why "Utopian"?

SIR,—In view of what I described in my article on "Pharmaceutical Techniques in Austria and Central Europe" (C. & D., June 29, 1963, p. 741), it is hard to understand how a more professional standard of retail pharmacy in this country can be considered "an this country can be considered "an unachievable Utopia." Different systems of health insurance do not necessarily bring about irreconcilable discrepancies where tariffs are concerned. but low standard of outlay in a multitude of competing pharmacies, and an inadequate professional education are certainly apt to prevent the achievement

of rewards commensurable to service rendered and the responsibilities met. To ensure a sound base of economy, together with safeguards for the sick, limitation of retail pharmacies is both required, and would be seemingly unavoidable in the event of European integration. In any respect price control appears to be much more in the interest of all concerned than a chaotic price war. It certainly is in the field of medicines. Prevention of overcharging seems to be of more value to the consumer than wild competition in price cutting with all its possible implications in lowered standards and impaired reliability. Surely the achievement of all that cannot be called "Utopia.

C. J. RAWSKI-CONROY, M.Pharm.. St. Albans, Herts

Buying Groups

SIR,—I have read the article by Mr. W. H. A. C. Whyte (C. & D., February 8, p. 130) with much interest and I am in agreement with most of his views. He is wrong, however, in saying that, if a shop was open for four days only, the turnover would not suffer. Shops Acts have from the beginning always acted in restraint of trade. This I know of my own knowledge. As to bulk buying by retail pharmacists, I gave thought to this many years ago, and found it of little or no value. I used to purchase the maximum quantity of a fruit salt to obtain the minimum price. The invoice came to just under £1,000. There would need to be at least five pharmacists in a town to make such an arrangement possible, and then it could only be done on a restricted scale. A warehouse would need to be rented, and probably a warehouseman employed to receive and issue the stock and keep records. Then there would be the cost of transport from the warehouse to the separate pharmacies. A clerk might be necessary to invoice the goods to the pharmacies, to collect the monies and pay the suppliers; otherwise one of the pharmacists would have to find time to do it. On the other hand some manufacturers might accept a bulked order from one pharmacist for delivery to several addresses, but then the clerical work would still be necessary, as the buyer would be beholden to the supplier. Another idea is for a number of pharmacists to make terms with their local wholesaler by agreeing to purchase certain lines from him only, thus enabling him to buy at the manufacturer's minimum price and all sharing in the saving. HUGH LATTIMER, Ewell, Surrey

An Unjustified Demand?

SIR,—To what depths of servility have we sunk, when practices such as that related by E. C. Tenner (see C. & D., January 4, p. 10) are carried out? I refer to "Statim in Pharmacy," when screaming children are dosed on the premises with teaspoonfuls of sus-JOHN H. KEENAN, pensions. Shaftesbury, Dorset



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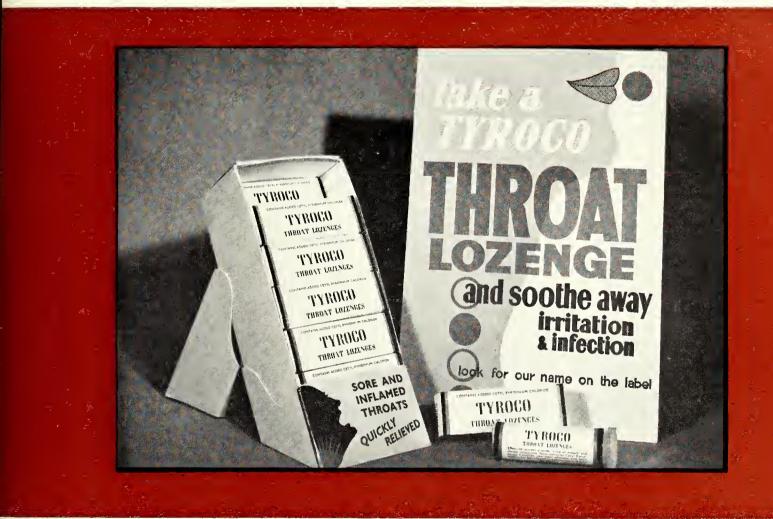
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Barely a Cost-of-living Increase

HOSPITAL pharmacists will be by no means alone in their extreme disappointment with the recent Industrial Court award (p. 148) of a 5 per cent, increase in pay to pharmacists employed in the hospital service. Every member of the profession who is genuinely concerned with its well-being must share, inevitably, the dismay of those who are still denied adequate and just recognition of their standards of education and training, their responsibilities and status. To those present at the court it seemed that a sound case had been effectively put forward by the staff side, aided by the expert evidence of the secretary and registrar of the Pharmaceutical Society, the secretary of the National Pharmaceutical Union, the dean of the School of Pharmacy, London University, and two chief pharmacists in the hospital service. We are bound to share with them the feeling that the award as announced seems to bear little relationship to the weight of evidence brought together and presented by the staff side.

The previous Industrial Court award was made following an entirely different set of circumstances. On that occasion there was some justification for thinking that the hospital pharmacist's case had not been so diligently prepared, or so well presented, as it might have been. The court then undoubtedly had a fixation upon the existing N.J.I.C. rates, and showed itself disinclined to accept that actual salaries paid were, on average, greatly

in excess of those levels.

In the recent hearing the amended N.J.I.C. scales were accepted in their proper perspective and in other ways it was clear that the staff side had done its homework on the presentation of its case to much better purpose. There was reasoned argument to show that the hospital pharmacist had a specialised job to do and was contributing to the National Health Service in a manner deserving of standards comparable to those of biochemists, and physicists — even more responsible, indeed, in that they were independently answerable for their own work.

The management side relied for its case primarily on the previous court award, though their point of attack, it would seem, had undergone a slight shift of ground in their attitude to salaries paid in retail pharmacy. (In 1962 the management side held that such salaries were relevant because of the existence of the N.J.I.C. scales; when the staff side pointed out that the agreed rates were unrealistic, the management had then to admit that the salaries paid might be above the agreed rates.

During the recent court hearing they found themselves, inconsistently enough, unable to accept that the increases in N.J.I.C. scales constituted a ground for a comparable increase in the salaries of hospital pharmacists.)

It is perhaps unfortunate that the Industrial Court did not have before it comments with which the Comptroller and Auditor General had prefaced the Civil Appropriation Accounts, 1962-63 (see C. & D., February 8, p. 124). There he referred to hospital prescriptions dispensed for out-patients by retail chemists and the increased use of EC10HP forms. The Comptroller referred to one hospital authority's estimate that the cost of ingredients in prescriptions dispensed for it by retail chemists might in one year be £28,000, against £18,000 if dispensed by the hospital. If, then, the staff side's claim had been met in full, at an estimated total annual cost of £325,000, and if hospital staffing problems were overcome, the extra cost would be largely counterbalanced by the saving on EC10HP procedures. In fact it might well have been covered by savings in slightly more than thirty such hospitals.

From our inquiries it would appear that the staffing problems in hospitals are becoming even more acute, and that some of the London teaching hospitals are finding it difficult to obtain staff even for the senior grades. Such staff as is being recruited is only temporary, at levels of pay based on locum rates.

The award of a 5 per cent. increase is hardly to be considered more than a cost-of-living increase. Its outcome is almost certain to be that the hospital pharmaceutical service will further deteriorate. Conditions may well become chaotic and patients will be the sufferers.

Matters cannot be left as they are. It is apparent that the arguments put forward, however well argued and however convincing to other pharmacists, made small appeal to the Industrial Court. The time has come to call in a professional negotiator who knows the sort of reasoning that succeeds with tribunals such as the Industrial Court, and who will realistically select those arguments to contribute to it and discard those others that do not. Success from that approach would be more likely, though not guaranteed. Without it, only further shrinkage in numbers and the operation of the law of supply and demand will put hospital pharmacists' pay at its proper levels. To sit by and await those slow results is beyond acceptance.

Drugs Against Leukæmia

PUBLIC awareness of the problems confronting the physician in treating victims of leukæmia has been aroused in recent weeks by the intensive Press coverage accorded to the French biologist Gaston Naessens and his "leukæmia serum." M. Naessens' "miracle cure" has since been declared useless by experts, and an element of tragedy has appeared in the story by the recent deaths of children treated with the serum.

There is, of course, another side to the leukæmia story—the protracted, unspectacular and often frustrating search for new compounds to combat this most perplexing and inexorable of diseases. The review by Mr. S. J. Hopkins (pp. 159-63) is a timely contribution that should help the pharmacist to familiarise himself with some of the lines of approach currently being followed by research workers and clinicians. The modern physician has now in his armamentarium, as Mr. Hopkins shows, a number of compounds that afford relief, and even total (albeit temporary) remissions, to some leukæmia patients. Yet the disease continues to be almost always fatal, and none of the new drugs has been able to stave off death indefinitely. The quest goes

on for less toxic, more specific agents against the disease. All must hope that, within a decade or so, the antimetabolites, cytostatics and radiomimetics of today will appear as crude as Ehrlich's early arsenicals now do.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN PERSONAL AND PREMISES FEES

Special committee meeting called to discuss report

SPECIAL meeting of the Pharmaceutical Society's Finance and General Purposes Committee together with chairmen of the other standing committees is being held on March 2 to discuss registration and premises fees for 1965. That information was given to the Council by THE TREASURER (Mr. H. Steinman) at its meeting in London on February 4 and 5. The Committee had asked for a report that would enable a decision to be taken at the special meeting.

THE REGISTRAR reported that Messrs. P. G. Flood, H. Jarvis Graves, C. W. Maplethorpe, T. Reid, W. J. Tristram and H. Williams were due to retire as members of the Council in May, and that the auditors due to retire were Messrs. H. Treves Brown, A. Forsyth, J. C. Hanbury, Sir Harry Jephcott and Mr. L. G. Matthews.

The minutes of the Education Committee recorded that eighteen persons had been registered as "student" during January 1964, against twenty-five for January 1963.

The Regional Advisory Council for Technological Education had written stating that a Standing Advisory Committee for biological and pharmaceutical education and education ancillary to medical sciences was being established in London and the Home Counties to replace the former ad hoc committee. The Society had been invited to appoint a representative to serve on the Committee, and the Committee's nominee, Mr. D. F. Lewis, was ratified by the Council.

The Benevolent Fund Committee reported grants from the Benevolent Fund to four widows and one member, and recommended grants to seven other widows, four members and one student. The Council accepted the recommendations.

A report from the Department of Pharmaceutical Sciences on its work during the period January-December 1963 recorded inquiries requiring practical investigation on a variety of pharmaceutical problems. The work done to answer the problems was being described in reports to be published regularly in the Society's journal.

The Publications Committee recommended, and the Council agreed, that letters from Branches in support of candidates for election to the Society's Council should in future be not published in the Society's journal.

The Law Committee minutes revealed that, during December 1963, the premises of 446 authorised sellers and 234 drugstore proprietors, grocers and similar traders had been visited by inspectors and agents. Since the previous meeting proceedings had been taken against one authorised seller and two traders.

A Departmental Committee on Jury Service having been set up by the Government to consider, among other matters, the existing list of persons authorised to claim exemption from jury service, the Society had been invited to submit its comments. The Law Committee had recommended informing the Departmental Committee of the Council's opinion that the existing general liability to serve on a jury should be continued, leaving the practising pharmaceutical chemist his right to claim exemption. The Committee felt that it should be the statutory responsibility of an electoral registration officer to notify in writing a person liable for jury service, so that he or she might claim exemption.

It was reported that the Society had discussed with the Proprietary Association of Great Britain the supply of medicine samples, and that the Association's Code was being amended to give effect to the decision reached. In future, Clause 13 of the Code would read:

"No member of the Association shall undertake the distribution to the general public of unsolicited samples of medicines, or issue in connection with the offer of samples of medicines, any type of voucher or coupon."

The Committee had asked that it should be made clear that, in any announcement to the public that samples could be obtained, there should be no reference to those samples being available from retail pharmacies. Mr. W. J. TRISTRAM (chairman, Ethical Committee) said the Committee had considered three cases of newspaper advertisements for dispensing services. In another case an advertisement referring to dispensing services had appeared in pocket diaries, and in a further case a local broadsheet had been distributed. In each instance the pharmacists or firms concerned had been notified of the Council's disapproval. Two cases had been reported of the distribution of leaflets, in one instance advertising a delivery service, and in another instance consisting of a Christmas price list for wines and spirits, in which various references were made to pharmaceutical goods. The Committee had thought that in both cases the ruling concerning canvassing for business had been misunderstood. It recommended that the persons affected should be informed that the Council disapproved of any canvassing associated with a pharmacy.

The Committee also recommended informing a pharmacist who had issued invitations for wine tasting on his premises, and advertised the event in the local newspaper, that such activity was considered unsatisfactory. A pharmacist and a corporate body had advertised contraceptives in the classified advertisements section of a local newspaper, and the Committee recommended that both should be required to discontinue the advertisements. It recommended that another pharmacist should be informed that publicity for price-cutting was not in the best interests of pharmacy.

A preliminary report was given by the Films Committee on a proposal to hold a two- or three-day conference on the production of educational films at Easter.

NEW BOOKS

Classics in the Theory of Chemical Combination

O. THEODOR BENFEY (editor). Dover Publications, Inc., New York, U.S.A., and Constable & Co., Ltd., 10 Orange Street, London, W.C.2. Pp. xii + 191. 15s.

FIRST in a new series of collections of fundamental essays and original articles in various fields of science, the volume presents them in developmental sequence, after an introduction, commentary and elucidatory annotations by the editor responsible for each selection. The series, which has been entitled "Classics of Science" is intended ultimately to embrace "all areas of science." Each article follows the original text and (with rare and clearly marked exceptions) is printed in full. The volume traces some of the important theoretical and experimental milestones along the road leading to modern valency concepts, from Wöhler and Liebig's 1834 paper "Researches Respecting the Radical of Benzoic Acid" to articles by Van't Hoff on the extension in space of structural formulæ, and Le Bel on the correlation between the structure of certain organic compounds and their light-rotatory properties, both originally published in 1874. There are nine papers in all, each illustrated with a portrait of the author.

Leukæmia

THE DISEASE AND DRUGS IN USE AGAINST IT

By S. J. HOPKINS, F.P.S.

EUKÆMIA may be described briefly as a disease characterised by the presence of an excessive number of white cells in the blood. The simplicity of that description conceals an ignorance of the true cause of the disease, as in spite of intensive and prolonged research, the causative factors remain obscure. The problems of diagnosis are also complicated, as leukæmia is a disease of protean manifestations, and may give rise to symptoms in almost any part of the body, which may simulate those of very different disorders.

The disease may appear suddenly and dramatically in the young, attack those in the full flood of their powers, or it may develop slowly and insidiously in the aged. The general symptoms of the various forms of leukæmia are those arising from the gradually increasing anæmia, which is a feature of the disease, together with an enlargement of the spleen. Acute leukæmia, which occurs mainly in children and young adults, is characterised by fever, pains in the bones, swollen and ulcerated gums, and cutaneous hæmorrhages. Examination of the blood shows an increase in the number of immature white cells or leucocytes to 15,000–50,000 per cmm., and a reduction in the number of red cells. These red cells are usually normal in appearance, but the reduced number causes a severe anæmia.

Chronic myeloid leukæmia occurs in older patients, mainly those between twenty and fifty years of age. The onset is characteristically slow, and a grossly enlarged spleen may be the first sign of the disease. The white cell count shows an enormous increase, and hundreds of thousands of leucocytes per cmm. may be found. These white cells are mainly immature cells, produced by an overactive bone marrow, and may penetrate and invade other tissues such as the liver. The purpura (cutaneous hæmorrhage), ulceration of the mouth and bone pains common in acute leukæmia also occur in chronic myeloid leukæmia, but usually at a later stage of the disease.

Chronic lymphatic leukæmia is more common in patients between forty and sixty years of age, and is more frequent in men than in women. Like chronic myeloid anæmia, the onset of attack is slow, but the spleen is less likely to be enlarged. On the other hand, the lymphatic system is usually attacked, leading to enlargement of the glands. The anæmia is less severe than that of chronic myeloid leukæmia, and the number of leucocytes is also lower, being of the order of 60,000–200,000 per cmm.

Even with the drugs available at present, the disease is invariably fatal, the expectation of life in acute leukæmia varying from a few weeks to about two years. In chronic myeloid leukæmia the survival time is slightly longer, and three years from the time of diagnosis is not uncommon. By comparison, chronic lymphatic leukæmia is relatively benign, and in old patients the course of the disease is slow, and they may survive ten or more years. Although the expectation of life of leukæmia patients is not much greater now than in the past, modern methods of treatment can do much to alleviate symptoms and produce a remission of the disease.

The cause of the disease, however, remains a mystery. Although antibiotics are useful in treatment, there is no evidence that the disease is infectious. A healthy child may be born of a leukæmic mother, and attempts to transmit the disease to animals have been unsuccessful. On the other hand, some avian and murine leukæmias have been

caused by viruses, but whether that fact has any significance in human leukæmia remains in doubt. There is however no doubt about the importance of radiation in the incidence of leukæmia. Exposure to doses of 100r or more carries with it a definite risk of leukæmia, and it has been noted that the disease is much more common amongst radiologists than it is amongst their clinical colleagues. Certain biochemical discoveries are also of importance. Thus the leucocytes of chronic leukæmia are deficient in alkaline phosphatase, require less oxygen and less glucose, and produce less lactic acid than normal leucocytes. Further, the life-span of the leukæmic cells is prolonged and the bone marrow becomes loaded with an increasing number of immature cells and it may be that a wider knowledge of the metabolism of the leukæmic cell will lead to a new approach to the problems of treating this baffling disease.

Treatment

Although x-rays have a limited place in the treatment of the chronic leukæmias, it is on the chemotherapeutic agents that reliance is placed. Unfortunately, these compounds lack specificity, and a balance has to be struck between the desired therapeutic effect and the unwanted toxic effects. It will be appreciated that in the chemotherapeutic treatment of infections, the organisms under attack have biological systems that differ in many ways from those of the host cells. In consequence, drugs which attack such invading organisms may not interefere significantly with the metabolism of the host cells, and their therapeutic actions may be augmented by the natural defence mechanisms of the body. The final effect of the drug may be both powerful and highly specific.

In leukæmia, the leucocytes have escaped from control, but their biochemical processes, although abnormal, are none-the-less basically similar to those of normal cells. Any drug therefore that will modify or reduce the activity of the abnormal cell can be expected to influence normal cells as well. Anti-leukæmia activity and toxicity are therefore closely connected. Fortunately, the leukæmic cells are usually more vulnerable to attack than normal cells, and by a careful adjustment of the dose of the therapeutic agent, an optimum therapeutic effect can be obtained. In practice, the drugs used can be classified as antimetabolites, cytostatic compounds, and steroids, and will be considered under those headings.

Antimetabolites

It has been known for many years that folic acid is an essential factor in cell metabolism, and is concerned with

the synthesis of nucleic acid, cell growth and division. Deficiency of folic acid soon leads to a macrocytic anæmia, leucopenia and other manifestation of vitamin lack. This

leucopenia, or deficiency of white cells, led to the suggestion that a folic acid antagonist might be of value in the treatment of leukæmia, when the white cells are in excess.

Folic acid (pteroylglutamic acid) is not the finally active substance in cell metabolism, but is the precursor of a more effective derivative known as folinic acid (5-formyl-

tetrahydrofolic acid). That substance is formed in the bone marrow and the liver from folic acid by an enzyme process, and this conversion of folic acid to folinic acid is an essential stage in the synthesis of nucleic acid. Any substance that could block that conversion could have a valuable though indirect therapeutic effect in leukæmia. Such blocking agents, or antimetabolites, are found amongst several substances chemically related to folic acid, particularly those in which the 4-hydroxy group of folic acid is replaced by an amino group. These compounds appear to have a specific action, as in experimental doses they cause symptoms similar to folic acid deficiency. These deficiency symptoms cannot be relieved by the administration of folic acid, even in high doses, yet the blocking action of folic acid antagonists can be evaded by the use of folinic acid. This action suggests that the antimetabolites act by blocking the enzyme systems concerned with the reduction of folic acid to tetrahydrofolic acid, and the addition of a formyl group to form folinic acid. The most effective of these folic acid antagonists to date are aminopterin (4-aminopteroylglutamic methotrexate (4-amino-N¹⁰-methyl-pteroylglutamic acid), acid), formerly known as amethopterin, and to a lesser extent 4-amino-pteroyl aspartic acid.

Initial treatment with these drugs requires close supervision and frequent blood counts in order to assess the response or degree of toxicity. Methotrexate is well absorbed when given orally, and the average dose for children is 2.5–5 mgm., given on three to six days a week according to need. The time taken to respond varies considerably, some cases showing an improvement in the blood picture in two to three weeks; others take much longer. In the lateresponding patients treatment should be continued for six to eight weeks before being abandoned as ineffective, unless early toxic reactions such as ulceration of the mouth or loss of hair occur first.

During remission of the disease, half doses may be given for maintenance, or interrupted courses of full doses may be tried. The sodium salt of methotrexate is also available if a parenteral form of the drug is required, and may be given by intramuscular or intravenous injection.

Treatment with aminopterin is on similar lines, but on the lower dosage level of 0.25-0.5 mgm. daily. These drugs are usually effective in the treatment of acute leukæmia in children, and may produce a remission of the disease in 40-60 per cent. of cases. The degree of remission however is unpredictable, and may vary widely. About one-third of patients appear to return to normal, others show a less complete response. In such cases the suppression or destruction of the abnormal cells is not sufficient to evoke a full response, and a replacement of the abnormal cells in the blood and bone marrow is necessary. The corticosteroids have a powerful stimulant effect on the production of normal blood cells, and in the acute leukæmias large doses of steroids combined with antimetabolite therapy offer the best hope of obtaining an early and complete remission. In any case, remission, even when complete, is only a temporary condition, as sooner or later a relapse occurs, and the drug used eventually becomes ineffective. A form of drug resistance occurs, presumably due to some change in the metabolic processes of the leukæmic cells; and treatment with another type of drug is necessary.

Both methotrexate and aminopterin are more effective in the treatment of children than of adults. In the latter, toxic reactions may occur before any therapeutic effect is obtained. In any case, these drugs are potentially toxic by virtue of their depressant action on the blood-forming cells, and constant hæmatological supervision is essential throughout treatment. When a severe depression of the bone marrow occurs, the toxic reactions may be neutralised to some extent by folinic acid, also known as the citrovorum factor or Leucovorin. This substance antagonises the action of folic acid antagonists, and may be given by intramuscular injection in doses of 3 mgm. once or twice daily, but its use may cause a return to the previous leukæmic condition.

Mercaptopurine

The importance of purines and pyrimidine derivatives in the metabolic processes of cells has led to many attempts to find analogous or related substances that might act as metabolic antagonists. One such substance is 6-mercaptopurine (Purinethol). That has been shown to influence the

formation of nucleic acid in bacteria, probably by preventing the incorporation of adenine and hypoxanthine into nucleic acid purines. The following formulæ show the close chemical relationships that exist between adenine,

hypoxanthine and mercaptopurine. Like folic acid antagonists, mercaptopurine is of great value in acute leukæmia of children, and may also bring about a remission of the disease when the condition has become resistant to such antagonists. The drug differs from the folic acid type of antimetabolite in being useful in controlling acute leukæmia in adults, and is also of value in the chronic granulocytic forms of the disease. In chronic lymphatic leukæmia, the

drug has no therapeutic effect, and the lack of response may be due to the ability of the lymphocytes to utilise substances other than those of the hypoxanthine type for nucleic acid synthesis, thus by-passing the metabolic path-

way blocked by mercaptopurine.

The effective dose of mercaptopurine varies from patient to patient, but an initial oral dose of 2.5 mgm. per kilo body weight daily is often given. The drug is well absorbed orally, and treatment may be continued for some weeks, but should be withdrawn temporarily as soon as the leucocyte count falls. Maintenance doses should be given after a few days, by which time normal hæmopoiesis may have been re-established, in order to prevent early relapse. Later, if a full remission has been achieved, discontinuous treatment may be given, based on laboratory reports of the blood picture.

In general, the toxic effects of mercaptopurine are less severe than with the folic acid antagonists. Mouth ulceration and gastro-intestinal disturbances are less common, and there is no evidence of renal or hepatic toxicity. There is no chemical antagonist to mercaptopurine, and should toxic symptoms occur, the drug should be withdrawn.

Azathioprine

The results obtained by the use of mercaptopurine in leukæmia have stimulated interest in the cytostatic properties of other purines. In the hope of obtaining more effective drugs, or those that might be active in other cancerous conditions, several hundred related compounds have been examined, but only a very few have had sufficient activity to warrant further study. One of the most interesting of these derivatives is azathioprine (6-(1-methyl-4-nitroimidazol-5ylthio) purine) also known as Imuran, which was found to be of value in chronic granulocytic leukæmia. This form of the disease is characterised by the excessive formation of granulocytes, but as the condition may assume a relatively stable and non-progressive form for a period of some months, opportunities exist to compare the effects of one drug with another. When given orally to patients with chronic granulocytic leukæmia in doses of 2-3 mgm. per kilo body weight daily, azathioprine produced a satisfactory response, and was well tolerated. The drug has little effect on the platelets, and the best results were obtained in mild cases of leukæmia where there was no excessive development in platelet number. It is of interest to note that azathioprine can suppress tissue-reactions, and it has been used as an immuno-suppressive agent in the surgical transplantation of renal homografts.

Azaserine and Azaguanine

These compounds are mentioned as they illustrate the difficulties of applying experimental findings to therapeutics. Azaserine (o-diazoacetyl-L-serine) is a glutamine antagonist, and has a marked inhibitory effect on experimental leukæmia in animals. The results in therapy however have been disappointing, although occasional improvement has been reported when azaserine and mercaptopurine have been used together. Similar considerations apply to 8-azaguanine, which resembles guanine in structure, and may function as a competitive antimetabolite. These anomalies between experimental and therapeutic results suggest that important metabolic differences exist between the animal and human forms of the disease.

Cytostatic Drugs

Although many compounds are known that can inhibit cell division, their value in the therapy of leukæmia is limited by their toxic effects. The inhibitory effects of the alkaloid colchicine for example are well known, but more recently desacetylmethylcolchicine has been used. That drug, also known as demecolcine, can bring about a remission in chronic myeloid leukæmia, with a general improvement in the blood picture, but it is less satisfactory in chronic lymphatic leukæmia.

Urethane

This old drug, once used as a mild sedative and hypnotic, also has antimitotic properties. Thus it inhibits cell division, possibly by interference with an enzyme system, and it has been used in doses of 0·5–1 gm. in the treatment of chronic granulocytic leukæmia. The dose must be reduced as soon as the leucocytes have been reduced in number to about 50,000 per c.cm., and when the response is good, the red cell level rises, the enlarged spleen is reduced in size, and there is a general subjective improvement. In any case, continued hæmatological control is essential, as the depressant effect of the drug may persist after the drug has been withdrawn.

Nitrogen Mustards

The toxic effects of mustard gas on the bone marrow were noted during the first World War, and subsequently a number of nitrogen analogues were prepared and examined. These compounds, of which nitrogen mustard or mustine is typical, owe their cytotoxic properties to the β -chloroethyl groups. These groups are highly active, and

they can combine with many other radicals; their therapeutic value springs directly from their ability to inhibit cell division by combining with carbonyl, amino or phosphoryl groups of nucleoproteins. The nitrogen mustards attack most rapidly growing cells, particularly those of the bone marrow, and the more differentiated cells are soon destroyed. Such drugs have obvious applications in the treatment of leukæmia and both chronic myeloid and lymphatic leukæmia respond well to nitrogen mustard by intravenous injection. The standard dose is 0.1 mgm. per kilo body weight, repeated daily for three or four days. The drug is unstable in solution, and must be dissolved in water immediately before use. The solution is extremely irritant and great care must be taken to avoid any leakage of the solution into the perivenous tissues. The response to treatment is usually good, and repeated remissions of the disease may be obtained. As with other drugs, the response becomes progressively less complete, and eventually a refractory stage is reached, and another type of treatment must be used. This general pattern of response applies only to the chronic leukæmias, as nitrogen mustard is of no value in acute leukæmia.

Related Products

Other products related to nitrogen mustard are represented by Trillekamin, Degranol and Endoxana.

Trillekamin, or tri-(2-chloroethyl)amine hydrochloride (trimustine hydrochloride) has the general properties of nitrogen mustard, and is given by intravenous drip infusion in doses of 6 mgm. in chronic lymphatic and myeloid leukæmia.

Endoxana (cyclophosphamide) represents a "transport" form of nitrogen mustard, and has the following structure:

$$CH_2$$
 $O = P - N$ CH_2 . CH_2 . CH_2 . CI CH_2 . CH_2 . CI CH_2 . CH_2 . CH_2 . CI $Cyclophosphamide$

It was synthesised on the basis that as malignant cells are known to be rich in phosphamidases, a nitrogen mustard phosphamide would be relatively inert until activated in the malignant cells. Such activation would occur as the compound was split up by the corresponding enzymes. Cyclophosphamide is relatively non-toxic, and ean be given

orally, as well as by injection, in doses of 100 mgm. or more. It is effective in a range of malignant conditions, and is useful in chronic myeloid and lymphatic leukæmia. There is less evidence of its value in acute leukæmia.

Degranol (mannomustine dihydrochloride) is the mannitol derivative of nitrogen mustard, and like cyclophosphamide, it is characterised by a reduced toxicity. In doses of 50–100 mgm., given intravenously on alternate days, the drug brings about a general symptomatic improvement in cases of chronic lymphatic and myeloid leukæmia. This favourable response may be evoked in patients who have become resistant to other treatment, but in acute leukæmia the drug is of little value.

Tretamine

A nitrogen-mustard type of action is found in other types of compound, and an orally effective substance is tretamine (triethylene melamine, TEM). It may be described chemically as 2,4,6-tri-ethylenimino-s-triazine or 2,4,6-tri-(1-aziri-dinyl)-1,3,5-triazine. In the body, tretamine is converted into

a highly reactive quaternary compound, which has the cytostatic properties of nitrogen mustard, but causes fewer side-effects. It is given in doses of 2.5 mgm. daily for two or three days, and then withdrawn for a week or ten days whilst the response is assessed. Treatment may then be recommenced with a dose of 0.5–1 mgm. weekly up to a total of about 20 mgm. The chief disadvantages of tretamine are the slow onset of action and the wide individual variation in response. Some cases of chronic lymphatic leukæmia may respond to small doses, yet others may require large doses of 10 mgm. or more. These variations may be due, in part at least, to variations in the degree of absorption and may be linked with the degree of gastric acidity. The drug may be inactivated in an acid medium, and in order to obtain a more consistent response, it should be taken on an empty stomach, preferably together with a dose of sodium bicarbonate.

The best results are obtained in the treatment of chronic lymphatic leukemia; in granulocytic leukemia the response is less satisfactory, and the drug is of no value in the acute forms of leukemia. It should be noted that tretamine undergoes slow polymerisation on storage, with a consequent loss of activity. All preparations of the drug should be refrigerator stored.

Thiotepa

(NN¹N³-triethylene-thiophosphoramide or tri-1-aziridinylphosphine sulphide) belongs to the same class of alkylating drugs as tretamine. The pharmacology of the drug is basic-

$$\begin{array}{c|c}
CH_2 & S & CH_2 \\
 & \parallel & CH_2 \\
 & \downarrow & CH_2 \\
 & \downarrow & CH_2 \\
 & CH_2 - CH_2 \\
 & Thiotepa
\end{array}$$

ally the same as that of the nitrogen mustards, and it has been used in the treatment of many disseminated malignant

diseases. Results have been very variable, and although both chronic granulocytic and lymphatic leukæmia may respond, the drug is not regarded as the first choice of treatment. The dose used, which may range from 10-60 mgm., requires careful assessment, based on the severity of the condition, and the unpredictable nature of the degree of response. Only the chronic forms of leukæmia are likely to respond to treatment with thiotepa.

Chlorambucil (Leukeran)

Chlorambucil, described as p-di-(2-chloroethyl)aminophenylbutyric acid, has the general pharmacological pro-

perties of the nitrogen mustards, but has the advantage of being active orally, and is absorbed more consistently than tretamine. It attacks proliferating cells by damaging the chromosomes, and although it is not entirely selective in action, in normal doses the drug acts more on the lymphocytes than on platelets or granulocytes. Chlorambucil is used mainly in the treatment of malignant lymphoma and Hodgkin's disease, but is occasionally useful in chronic lymphatic leukæmia. The average dose is 0·1-2 mgm. per kilo body weight daily for three to six weeks, and may produce a rapid reduction in the leucocyte count, followed by a remission of symptoms. Maintenance doses of 0.03-0.1 mgm. per kilo body weight may then be given, or treatment may be omitted until signs of relapse occurs. In any case, the dose is highly subjective, and must be adjusted according to the symptomatic and hæmatological response.

Busulphan

Also described as 1:4-dimethanesulphonoxybutane, busulphan (Myleran) is the tetramethylene ester of methanesulphonic acid.

Although it is not related to the nitrogen mustard group of alkylating agents, it has a similar but more selective pharmacological action. Unlike the mustards, busulphan acts almost exclusively on the bone marrow, and in the smaller doses, only the myeloid cells are affected. Thus the drug is of considerable value in chronic myeloid leukæmia, and most patients respond well initially, with considerable symptomatic improvement. The remission thus obtained may last some months, and subsequent courses may be given as required. The standard dose is 4 mgm. daily but after relapses have occurred, maintenance doses may be given, varying from 0.5–3 mgm. daily, and aimed at keeping a leucocyte count of 10–20,000 per cmm. Busulphan is of no value in chronic lymphatic leukæmia or in the acute forms of leukæmia.

Uramustine

Also known as uracil-mustard, this compound is a relatively new addition to the range of cytotoxic drugs, and may be described chemically as 5-di-(2-chloroethyl)aminouracil. It functions as a polyalkylating agent, and reacts with many organic radicals, such as carbonyl and amino

groups, which are present in the nucleoproteins of cells. The drug has been used with success in chronic lymphatic

leukæmia, and the degree of remission obtained may be considerable. Some patients with chronic myelogenous leukæmia may also respond to uracil-mustard, but the drug is of no value in acute leukæmia. Uracil has the advantage of being effective orally, and is given in doses of 1–2 mgm. daily until improvement occurs, or a toxic effect on the bone marrow supervenes. When the response is adequate, maintenance doses of 1 mgm. daily for three weeks, followed by a rest period of one week, may be given. In general the drug is tolerated fairly well, and side-effects such as nausea and vomiting are related to the size of dose.

Triaziquone

A very wide range of compounds has been examined for potential value in malignant disease. Not all active substances are effective in leukæmia, although they may be useful in other malignant conditions. An example of these newer compounds is triaziquone (Trenimon). The drug is described chemically as tri-(1-aziridinyl)-1,4-benzoquinone,

and appears to exert its cytotoxic effects by inhibiting the glycolysis of cells. Malignant cells obtain much of their energy from the formation of lactic acid, and the inhibition of cellular oxidation processes might easily lead to cell damage and cessation of growth. Triaziquone is mainly of value as an adjuvant to surgery and other forms of tumour therapy, but is occasionally of value in some forms of leukæmia. The oral dose varies from 0.5 mgm. twice a day to 0.5 mgm. twice a week, or 0.2 mgm. may be given daily by intravenous injection up to a total dose of some 5 mgm.

Antibiotics

The antibacterial antibiotics have no place in specific anti-leukæmic therapy, but a few related substances are known which have a certain antitumour action, in particular actinomycin C (Sanamycin). The actinomycins, obtained from cultures of various streptomycetes have a very complex structure, comprising a phenoxazine nucleus, to which are attached two long-chain substituents containing amino acid groups. The drug has cytostatic and radiomimetic properties, and can destroy proliferating cells much in the same way as x-rays. It is mainly indicated in the treatment of Hodgkin's disease, but it is used occasionally in lymphatic leukæmia. Sanamycin is given only by intravenous injection in doses of 100–200 microgrammes daily, to a total dose of 0.01 gm. Larger doses are well tolerated if treatment is augmented with aneurine and ascorbic acid.

Adrenal Steroids

The steroids are valuable additional forms of therapy in some types of leukæmia, but in others they are quite useless. Thus in the acute leukæmia of children, the steroids, represented by prednisone, may bring about a rapid remis-

sion of the condition when the drug is given in adequate doses. Initial doses of 50 mgm. daily may be given in divided doses, and following clinical improvement, the dose may be decreased and withdrawn over seven to ten days. With short-term high-dosage therapy, many of the side-effects of the adrenal steroids can be avoided, although in the later stages of the disease, when the patient has become resistant to the drug, and higher doses are necessary, some side-effects such as water-retention, obesity and rounding of the face may be expected.

The steroids are also useful in older patients with chronic lymphatic leukæmia, especially those who have become resistant to the cytostatic drugs. Here however large and continued doses may be necessary, and the dose and degree of response must be balanced against the anticipated side-effects and increased liability to infection. In other forms of leukæmia the adrenal steroids are of less value.

The mechanism of the action of the steroids on leukæmic cells is still obscure. They inhibit the growth of lymphocytes, and in lymphatic leukæmia the abnormal cells may still respond. When response does occur, the abnormal cells disappear, followed by a rapid regeneration of normal cells. Too rapid a response is undesirable, as the quick breakdown of the abnormal cells may cause a rise in the uric acid level of the blood and renal complications. Thus the adrenal steroids differ markedly in their action from the folic acid antagonists, which depress the bone marrow generally, and from which the subsequent regeneration is slow.

The treatment of leukæmia has many difficulties and the search for new drugs continues. The possibility of finding a natural remedy still exists, and the use of the alkaloid vincristine, obtained from the periwinkle plant and of some value in the treatment of acute leukæmia in children, is an indication that nature's storehouse is not yet exhausted. The significance of many other factors also remains to be explained. It is known for example, that a seasonal variation in the incidence of acute leukæmia, but not in myeloid leukæmia, may occur. In America, the increase occurs mainly in the winter and early spring, whereas the increase in Britain is noted chiefly in June. Whether these differences are related to the incidence of respiratory infections, or to specific environmental factors is still unknown, but no doubt the present puzzling jig-saw of facts will eventually be sorted out, and the control of leukæmia, as well as that of other neoplastic diseases, will finally be achieved.

ONE HUNDRED YEARS AGO

CROCODILE TEARS

From the C. & D., February 15, 1864

In days gone by, the stuffed crocodile or alligator was always considered an indispensable accessory to the ornamental portion of the apothecary's shop. We supposed, in our ignorance, that the exhibition of these delightful specimens of defunct saurian nature had fallen into disuse in this age of artistic and scientific enlightenment. But we were wrong. The pharmaceutical crocodile is not only still extant, but there is now to be seen in London a very fine speciment of this reptile, alive and weeping, bedewing the pavement of Bloomsbury Square with copious floods of tears, and waking the echoes of Great Russell Street with his wailing. And why all this grief in the heart of this benevolent but somewhat treacherous animal? Is the Society whose headquarters are in the locality named threatened with dissolution? Are its members diminishing in numbers? . . . Quite wrong, gentle reader! For none of these does the wide-mouthed reptile weep: when any of these impending misfortunes press heavy on his soul, he bemoans his fate in private, and strews his flat head with the ashes of his almost extinct laboratory furnaces in solitdue and silence. It is only when an attempt is made by a wicked Medical Council "to take from the whole body of chemists. all of whom are non-members of the Pharmaceutical Society, any of the rights and privileges they already possess," that our broad-backed friend gives way to loud and passionate fits of grief.

WORLD TRADE

Indonesian Citronella Oil Plant. — The Committee for Credit on Production-sharing in Indonesia has given final consent to the setting up of the citronella oil plant, according to informed sources of the Department for People's Industry in Djakarta. The project is to be carried out by the State corporation Kimia Yasa, with the Technoexport of Bulgaria, the sources say. Completion of the project is scheduled for 1965.

Hungary to Export More Pharmaceuticals.—Hungary plans to step up her export of pharmaceuticals by 30 per cent. in 1964. They went up by 12 per cent. in 1963, and now represent 5 per cent. of the country's total exports. Hungary at present exports pharmaceuticals to fifty-eight countries, her biggest market being the Soviet Union. With India, Indonesia, Australia. Mexico and Japan, also large customers. A trade agreement has been signed with Albania undertaking to supply pharmaceuticals to her during the current year.

Japanese Acetic Acid Cartel.—Seven leading Japanese acetic-acid manufacturers have worked out a plan to set up an export cartel under the country's Export and Import Trading Law. The cartel would regulate exports and prices. Aim is to increase acetic acid exports to 10,000 tons in 1964 (from 3,100 tons in 1963) by eliminating excessive competition between manufacturers to export markets. Japanesc output is expected to reach 170,000 tons in 1965. Domestic consumption is estimated at 150,800 tons a year.

Spice Output in India. — The target set by India under her Third Plan for areca nuts production is likely to be only 5,000 tons short; output rose to 97,055 tons in 1962-63 and is expected to reach 102,000 tons by the end of the plan. More attention is to be paid to the production of white pepper to retain some of the European markets; India has previously specialised in the black (Malabar) variety. Increased cardamom production has not been as successful as expected. There are likely to be 7,000 extra acres producing 200 extra tons under the Third Plan.

Indian Antibiotic Production .- Hindustan Antibiotics, Ltd., Pimpri, nr. Poona, an undertaking of the Government of India, has increased penicillin production from 40 million mega units per year in 1958-59 to 50 million megas in 1962-63. Estimated production for 1963-64 is 60 million mega units, which will go up to 84 millions after the introduction of new strains and plant by 1964-65. Sales for the same period are estimated at Rs.60 million. A streptomycin plant of the company, inaugurated in 1962, is now producing dihydrostreptomycin and streptomycin sulphates. Proposals are afoot to double production before the end of the financial year 1963-64. Capital cost of plant (now Rs.21 million) will be Rs.27 million after the expansion. Another plant is producing broad-spectrum antibiotics of the tetracycline group and is now fully engaged in the production of chlortetracycline.

PRINT AND PUBLICITY

PRESS ADVERTISING

COUNTY LABORATORIES, I.TD., Beecham House West, Brentford, Middlesex: Brylereem, Macleans tooth-paste, Silvíkrin shampoo, Vosene shampoo, Bristow's lanolin shampoo, Amami hairsetting lotion, Silvíkrin hair cream, Body Míst spray deodorant, Brístow's star spray and Hiltone haír lightener, In national Press.

Press.

J. G. GODDARD & Co., Ltd., 100 Moncrieff Street, Peckham, London, S.E.15: Goddard's embrocation: In London and the Midlands Press.

PHILIPS ELECTRICAL, LTD., Century House. Shaftesbury Avenue, London, W.C.2: Philips Philishave cordless shaver: In national Press. IHERMOS, L1D., Brentwood, Essex: Thermos vacuum flasks, In Woman, Woman's Own,

vacuum flasks, In Woman, Woman's Own, Woman's Realm, Woman's Mirror, Daily Express, Daily Mirror, and "outdoor" magazines.

VITAMINS, LID., Manor Royal, Crawley, Sussex: Bemax, In national Press.



PROMOTION FOR A CONTEST: Display material produced by Gibbs Pepsodent, Ltd., to attract mothers to enter their young daughters in the Miss Pears 1964 contest. The material is available to all stockists.

Commercial Broadeasting

FASSETT & JOHNSON, LTD., 86 Clerkenwell Road, London, E.C.1: Nestlé Colortint. On Radio Luxembourg. PRACTICAL PHARMACEUTICALS, LTD., 50 Jesmond Road, Newcastle-on-Tyne, 2: Hermesetas, On Radio Luxemboure

Radio Luxembourg.

THOMAS CHRISTY & Co., LTD., North Lane,
Aldershot, Hants: On Radio Luxembourg.

PUBLICATIONS
Booklets and Leaflets

MORPHY-RICHARDS (CRAY), LTD., 80 Pall Mall, London, S.W.1: "You and the Future of Retailing" (two talks by Mr. M. John Mills) (12-p. pamphlet).

TRUFOOD, LTD., 113 Newington Causeway, London, S.E.I: "When Baby needs more than just milk . . " (6-p. leaflet on Spoonfoods and junior foods).

DISPLAY MATERIAL

KIMBERLY-CLARK, LTD., Larkfield, nr. Maidstone, Kent: Merchandisers, window-stickers and mobiles for Delsey toilet tissues.

FOOD BROKERS, LTD., Crown House, Morden, Surrey: Free sample merchandiser and display bins for Ferguzade glucose drink.

EXPANSION PLANS

RICHMOND CHEMICALS, LTD., are planning a £20,000 extension to their plant at Winsford, Ches. Work on the new 10,000 sq. ft. extension should be completed by end of March. The extension is being built to give more space for Richmond Aerosol Co.

PRODUCTION of phthalic anhydride is being more than doubled by Howards of Ilford, Ltd. (present capacity: 6.000 tons a year). New plant will operate an improved process, becoming on stream during 1965. Much of the capacity is being taken up by expansion of the Group's own plasticiser manufacturing activities, but increased material will become available.

TO achieve the economies of large-scale production of vinyl acetate monomer Courtaulds, Ltd., and the Distillers Co., Ltd., are jointly to build a new plant which will use a new production process. The new factory is expected to cost between £1 million and £2 millions and have a capacity of up to 30,000 tons a year in place of the 18,000 tons at present being turned out at the two existing plants which will be closed down.



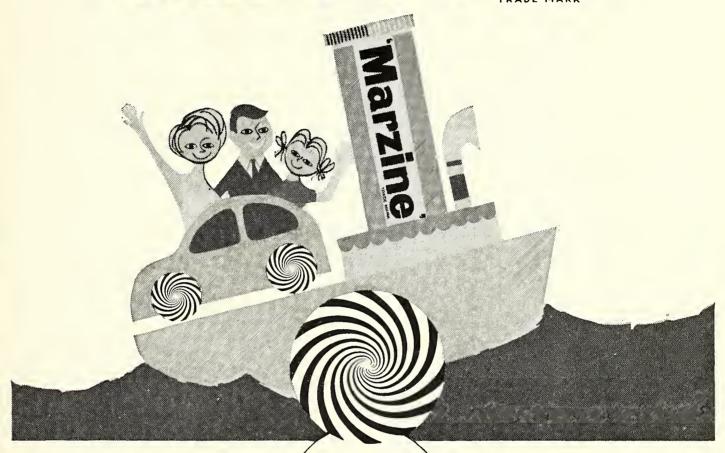




Right: "Dump" bin for Fergnzade glueose beverage of Strathmore Springs, Ltd., Forfar, Seotland. Its "header" board is tartan-trimmed, and the unit holds free-sample and large-size bottles to link with an

eight-week campaign in Southern Television area (when sample bottle is returned empty, threepenee is allowed on large bottle). Left: Counter display unit for the new "Cosmetie Soap" of Max Factor Hollywood & London (Sales), Ltd., 16 Old Bond Street, London, W.1. The unit holds eighteen tubes. Centre: Counter display unit produced by Southalls (Sales), Ltd., Bessemer Road, Welwyn Garden City, Herts, for Atrixo hand care. It holds four large and six medium tins, yet, having a base only 4 in. in diameter, occupies minimum counter space. The unit is in white stovenamelled metal, the triangular "flag" in green on yellow.

Marzine



be sure you catch the 3-way

BONUS BOAT THREE
DOZEN
TUBES
13 to the dozen

* SIX
DOZEN
TUBES

14 to the dozen

OR MOSS

14 to MORE

plus the dozen

delivery terms

pay in August

BONUS OFFER CLOSES MARCH 31st

The most advantageous bonus terms are now being offered for 'MARZINE'. Don't miss the boat if you want to make extra profit on your season's sales.

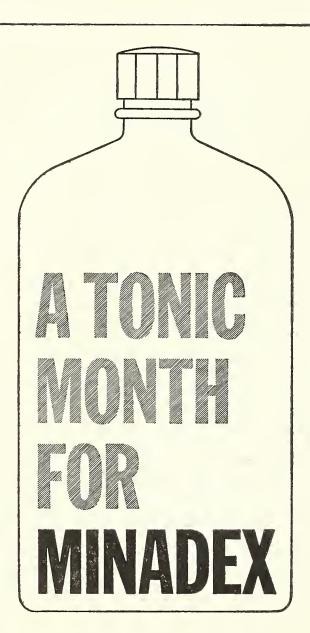
Order your full supply now. Retail price 2s. 6d. per tube

★ ORDERS FOR 6 DOZEN TUBES OR MORE ARE SENT CARRIAGE PAID





BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) LONDON



This is the month when children and young people are recovering from their annual crop of colds and 'flu. So this is the month to order, stock and display Minadex.

It is the tonic that many doctors prescribe, and nurses and pharmacists have recommended for over 20 years. Minadex is an utterly reliable combination of vitamins A and D, iron, glycerophosphates and copper. Children will appreciate its appetising orange flavour and will benefit from their course of Minadex...even its price is a tonic!



In 6 and 12 fl. oz. bottles. Retail prices 3/- and 5/2. Order Minadex in these extraprofit parcels:-

Minadex Parcel No. 1: 24 x 6 oz. bottles 48/-. Minadex Parcel No. 2: 12 x 12 oz. bottles 41/4.

The name Minadex is a trade mark of Glaxo Laboratories Limited



GLAXO LABORATORIES LIMITED

TRADE REPORT

The prices given are those obtained by importers, or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

London, February 12: A steady flow of business was transacted during the week in certain sections of the CRUDE DRUGS market.

Attention was focused on Brazilian MENTHOL with the result that prices again moved u menthol however upwards; Chinese was unchanged. Honey continued to be in good demand as some exporting countries have cleared all their stocks. Spot BALSAM of Peru and Buchu were threepence per lb. dearer. Japanese AGAR was lower by a similar amount. Alexandrian SENNA PODS are now extremely scarce. Shipments of Tinnevelly LEAVES and PODS during January from the port of Tuticorin are given below.

SENNA	United Kingdom	United States	Europe			
	tons	tons	tons			
LEAVES		100	8			
Pods	-	23	7			

A report from India states that heavy rainfalls three months ago destroyed many cultivated plants which has necessitated resowing some of the seeds for the coming season's crop.

Brazilian PEPPERMINT OIL followed the higher menthol values and spot holders were asking sixpence per lb. more than in the previous week. Formosan Citronella prices were easier in both positions while Lemongrass for shipment was down 4½d. per lb.

As expected higher prices for Mer-CURY SALTS came into force; as an example Ammoniated mercury powder is now 72s. per kilo (against 67s.). The metal was increased by a further £2 per flask to £87.

Pharmaceutical Chemicals

ACETANILIDE. — Crystals, one-cwt. lots, 2s. 10d. per lb.; 5-cwt., 2s. 9d.

Adrenatine. — (Per gm.). Synthetic B.P. 1-kilo lots, 11d.; 500 gm., is 1s. 1d. Acid Tartrate, B.P., 1 kilo, 7½d.; 500 gm., 9d.

ANTIMONY SALTS.—CHLORIDE SOL., B.P.C., 1934, carboys, 5s. 7d. per kilo.

BACITRACIN. — Sterile topical is 53s. per mega unit for 25 m.u.

BARIUM SULPHATE. - B.P. 50-kilo lots. 3s. $9\frac{1}{2}$ d. per kilo.

Bromides.—Crystals (per 1b.):—

			1 (cwt.	5 cwt.
POTASSIUM SODIUM AMMONIUM	•••		s. 2 2 2	d. 6 6 10	s. d. 2 5 2 5 2 5 2 8}

Powder is three-halfpence per lb. more, packages free, carriage paid terms.

CAFFEINE. — ANHYDROUS and MONOHY-DRATE for 50-kilo lots and over 28s. 1d. per kilo; CITRATE, 20s. 11d. CHLOROCRESOL.—Pharmaceutical quality,

7s. 7d. per lb. (1-cwt. lots).

CHLOROPHYLL.—Water-soluble, 100 per (medicinal grade), 280s, per lb.; oil soluble, 25s. per lb.

CHLOROXYLENOL. — B.P., 5s. 8d. per 1b. for 1-cwt. lots; 5s. 3d. per 1b. for 1-ton lots

CORTISONE. - One-kilo lots, ACETATE. 4s. 6d.; HYDROCORTIS ALCOHOL, 4s. 9d. per gm. HYDROCORTISONE ACETATE OF

CRESOL.—B.P. quality, 7s. 9d. per gall. in 5-gall. lots.

CREOSOTE.—B.P. quality, ex beechwood, from 6s. 9d. to 7s. 6d. per lb.

DICOPHANE. (DDT). - One-ton lots, 2s. $4\frac{1}{2}$ d. per lb.

GLUCOSE. - Medicinal, B.P., POWDER, 71s. 6d. per cwt., delivered in 1-ton lots. LIQUID, basic price. 50s. 6d. per cwt.

GLYCEROPHOSPHATES. — Per kilo in 50-kilo lots: CALCIUM, B.P.C., 28s. 2d.; IRON, B.P.C., 33s. 7d.; MAGNESIUM, B.P.C., 35s. 5d.; MANGANESE, N.F.X., 49s. 7d.; POTASSIUM, 50 per cent., B.P.C., 8s. 6d. SODIUM, 50 per cent., B.P.C., 5s. 11d. and powder, B.P.C. 1949, 18s. 8d.; GLYCEROPHOSPHORIC ACID, 20 per cent., 10s. 8d.

HEXAMINE. — B.P., 1s. 6d. per lb. for 1-ton lots, delivered in 1-cwt. bags. Technical is 1s. 5d. per lb.

HYDROGEN PEROXIDE. — 27.5 per cent. (by weight). £115 per ton; 35 per cent., £138 in returnable carboys.

HYDROQUINONE.—One-cwt. lots, 10s. per lb., 1-ton, 8s. 6d.

HYOSCINE HYDROBROMIDE.—Per oz. 102s. and per kilo, 3,419s.

HYPOPHOSPHITES.—Per kilo:—

Quantity	1 kilo	12.5 kilos	50 kilos
CALCIUM, B.P.C IRON, B.P.C, MAGNESIUM MANGANESE, B.P.C. POTASSIUM, B.P.C. SODIUM, B.P.C	s. d.	s. d.	s. d.
	17 2	16 1	15 1
	34 10	33 7	32 5
	29 3	28 2	27 2
	35 3	33 11	32 9
	23 1	22 5	21 4
	19 2	18 1	17 1

IODIDES. — (Per kilo). Potassium, 50-kilo lots, 23s.; SODIUM, 28s. 6d. for 25kilo lots, ammonium, 46s. 6d.

IODOFORM.—Powder (per kilo), 55s. 3d. in 50-kilo lots; less than 50-kilos, 56s. 9d. Crystals are 6s. 6d. per kilo more.

KAOLIN. — Light, 60s. per cwt.; 1-ton,

Lactose. — B.P. in 1-ton lots packed in 1-cwt. paper-lined sacks, £129 10s. per ton, delivered in the United Kingdom.

Mercury derivatives.—Rates (per kilo) MERCURY DERIVATIVES.—Rates (per kilo) for under 50-kilo lots—ammoniated mercury, B.P., powder, 72s.; PERCHLORIDE, B.P.C., powder, 59s.; SUBCHLORIDE (calomel), B.P.C., 68s. 6d.; OXIDES, yellow, B.P., 72s. 6d.; red B.P.C., 1949, 61s. 3d.; IODIDE, B.P.C. 1954 (25-kilo lots) 61s. 3d. per kilo; OXYCYANIDE (10 kilos), 119s. per kilo.

METHYL SALICYLATE. — Five-ton lots, 3s. 2d. per lb.; 1-ton, 3s. 2½d.: 10-cwt., 3s. 3d.; 5-cwt., 3s. 6d.; 1-cwt., 3s. 8d.

METHYL TESTOSTERONE.—Per kilo, £95. NEOMYCIN. — SULPHATE, B.P., 740s. per kilo: 5-kilos, 700s. per kilo.

OESTRADIOL. — MONOBENZOATE, 14s. 6d. per gm.

Paracetamol. — One-ton lots, 10s. 2d.

PARAFFINS. — Prices to wholesale distributors per gall.—Liquid: HEAVY, B.P., in drums, 8s, 8½d. to 8s, 9½d. as to quantity: over 500 gall. in bulk, 8s, 7½d. Light, B.P., drums, 7s, 1½d. to 7s, 2½d.; bulk, 7s, 0½d. Technical white: LIGHT, 6s, 6d, to 6s, 7d, and 6s, 3d, in bulk; MEDIUM, 7s, 7d, to 7s, 8d., bulk, 7s, 4½d. Drums charged and returnable. Soft: Best grades White, medium consistency, £116 15s, per ton and soft consistency, £113 7s, 6d. Yellow, £94 10s, Other grades (all B.P.) at £95, £100 10s., £106 per ton for white and at £74 17s, 6d. for yellow. All in non-returnable drums delivered.

Penicillin. — Sodium, Potassium, or

PENICILLIN. — SODIUM, POTASSIUM, OF

Prencillin. — Sodium, Potassium, or Procaine, 6d. per mega unit.

Prednisolone.—Alcohol, 8s. per gm.; acetate, 9s. per gm. for 250-gm. lots.

Prednisone. — One-kilo lots, alcohol and acetate, 7s. 6d. per gm.

Progesterone.—Price is 1s. 3d. per gm. for 1-kilo lots.

Quinidine.—For 15 kilos or 500 oz. or more: -

Home Trade	Per kilo	Per 100 oz.			
QUINIDINE SULPHATE ALKALOID CTYST	s. d. 199 1 260 8	s. d. 564 6 739 1			

Prices include tins and cases and free delivery U.K.

QUININE. — 1,000-oz. lots:—ALKALOID. 4s. 3d. per oz.; sulphate, b.p., 1932, 2s. 5d.; sulphate, b.p., 1958, 2s. 11d.; bisulphate, 2s. 10d.; dihydrochloride, 4s. 5d.; hydrochloride, 3s. 9d.; hydrobromide, 4s.

SACCHARIN.—B.P. powder 1 lb. and over 15s. 6d. per lb. Sodium salt, B.P., 14s.

Salicylamide. — One-cwt., 6s. 3d. per lb., 5-cwt., 5s. 11d.

SALOL.—B.P.C., 9s. per 1b. (1-cwt. lots). SAL PRUNELLA. - Balls, 3s. 9d. per lb. in 1-cwt. lots.

STREPTOMYCIN.—BASE OF SULPHATE, 9d. per gm. Same prices for DIHYDRO.

TALC. — One-ton lots, B.P.C. in kegs, 1s. 2d. per lb.

TEREBENE. — B.P.C., one-carboy lots, 4s 5d, per lb.

THIOGLYCOLLIC ACID. - Basic rates per THIOGLYCOLLIC ACID. — Basic rates per lb., 97–98 per cent., 26-lb. packs, 15s.; 75 per cent., 11s. 6d. Ammonium thioglycollate, 40 per cent. ph 9-3 (24-lb. packs), 6s. 8d.; Monoethanolamine thioglycollate, ph 9-9, 4 per cent., 9s. 10d. All carriage paid and subject to purchase tax.

Industrial Chemicals, Solvents

ACETALDEHYDE. — The 100 per cent. is £122 per ton minimum 1-ton lots.

ACETATES. — Per ton, spot in drums: AMYL, technical, £254 and B.S.S., £256. BUTYL, £136: ETHYL, £113; ISOBUTYL (80 per cent.), £111 and pure, £115; ISOPROPYL, £110; METHYL, 80 per cent., £142.

ACETIC ANHYDRIDE. — 12-ton lots £103 per ton; $2\frac{1}{2}$ -ton, £107, tanker deliveries.

ACETONE. - One-ton lots spot, £66 per ton in drums.

Carbon tetrachloride. — In 40-gall. drums, 1 ton and under 2 tons, £83 15s.; 4 tons and upwards, £82 5s.

ISOPROPYL ALCOHOL. - Technical grade (99 per cent.) in tank car lots from 4s. 6d. to 4s. 8d. per gall.; anhydrous in drums. 7s. 1d. to 7s. $4\frac{1}{2}$ d. per gall.; in bulk. 6s. 11d. to 7s. 1d.

METHYL ETHYL KETONE. — One-ton lots, £111 10s. per ton.

Naphthalene. — Contract rates phthalic grade are from about £27 per ton upwards in bulk, ex works; lower crystallising whizzed grades from £20 to £25 per ton ex works; ball and flake, £71.

N-BUTYL ALCOHOL. — One-ton lots in drums. £131 10s. per ton and one-drum lots, £138 10s. per ton.

PHTHALATES. — Prices (per ton) one-ton lots in drums: Dibutyl. £167; Di-Iso-Butyl, £162; Di-Ethyl, £174; Di-Methyl,

PHTHALIC ANHYDRIDE.—Domestic material quoted at £90 per ton.

SODA ASH.—Four-ton lots, 232s. 6d. per ton delivered.

STEARATES. — Spot prices for minimum 1-ton lots. — ALUMINIUM (all grades), 253s. 6d. per cwt. CALCIUM (precipitated), 243s. 6d. LEAD (30 per cent.), 223s. 6d.; MAGNESIUM (standard). 272s. and (superfine), 302s.; ZINC, 226s. to 286s. as to grade

Crude Drugs

ACONITE. — 2s. 8d. per lb. - Spot. Spanish napellus,

AGAR.—Kobé No. 1, 12s. per lb. in bond; February–March shipment 11s. 9d., c.i.f. Spanish, 13s. 3d. to 14s. duty paid as to gel strength.

ALOES.—Primes, 245s. to 250s. per cwt. spot. Extra primes 245s., c.i.f. for shipment. Curação, spot, 310s.; shipment, 300s., c.i.f.

Balsams. — Per lb.: Canada: Spot 19s. 6d. to 23s. 6d. Copaiba: B.P.C. grade 9s. Peru: Spot, 9s. duty paid. Tolu: B.P., from 10s. 6d. to 30s.

Buchu. — Spot value, 4s. 9d. per lb.; new crop for shipment, 4s., c.i.f.

Camphor.—B.P. powder spot, 5s. 10½d. in bond; shipment, 5s. 6d. per lb., c.i.f. Synthetic, 4s. 6d. spot.

Cassia.—Fistula, 105s. per cwt. landed: lignea (whole), for prompt shipment, 195s., c.i.f.; selected broken, 185s., c.i.f.

CHAMOMILE. — "Roman" type, new crop, 14s. per lb.; German type, old crop,

CHERRY BARK. — Thin natural, 2s. per lb.; shipment, 1s. 11d., c.i.f.

Cocillana.—Bark 1s. 10d. per lb. on the spot.

COLOCYNTH PULP. - For March-April shipment, 3s. 4d. per lb., c.i.f.

DIGITALIS.—Purpurea leaves, 2s. 6d. per

ELEMI.—Spot, 1s. 4d. per lb.; shipment, ls. 1d., c.i.f.

Portuguese, 8s. 4d. per lb. Ergot. —

spot and 8s. 2d., c.i.f.

GINGER.—(Per cwt.) African, spot, 255s. per cwt.; new crop, May-June, 235s., c.i.f. Jamaican No. 3 spot, 775s.; new crop February-April, 645s., c.i.f. Cochin, new crop for February-March shipment offered at 265s., c.i.f.

HENNA. — Indian, for shipment, 70s.,

HONEY. — (Per cwt.) Australian light amber, 157s. 6d. to 160s. and medium amber, 155s. to 157s. 6d. Argentine, 160s. to 165s.; Canadian, 187s. 6d. to 192s. 6d.; Mexican, 155s. to 160s. nominal, all expressions. warehouse.

1PECACUANHA. — Matto Grosso for shipment, 68s, 6d, per lb., c.i.f. and spot, 70s. Spot Colombian, 72s. 6d.

Karaya, — No. 1 gum, spot, 400s.; No. 2, 330s, per cwt.

Kola nuts. — African, $5\frac{1}{2}$ d. spot and $4\frac{1}{2}$ d., c.i.f. (per 1b.).

Lanolin. — Anhydrous B.P. is from 5. 8½d. to 1s. 10½d. per lb. in 1-ton lots delivered free drums.

LEMON PEEL.—Spot, 1s. 6d. to 2s. 3d. per lb. according to quality.

LINSEED. — Whole, 72s. 6d. per cwt.; crushed, 110s.

LOBELIA.—HERB, 7s. 6d. per lb., spot; Dutch, 4s. 6d. to 5s. 6d.

MACE.—Whole, pale blade, 14s. 6d. per lb. on the spot. Shipment, 14s. lb.

MALEEERN.—Root for shipment quoted at 75s. per cwt., c.i.f.

MENTHOL.—Chinese: spot, 27s. 6d. per lb. duty paid; February—March shipment, 25s., c.i.f. Brazilian, 21s. to 22s., in bond, as to grade; shipment from 21s., c.i.f. Formosan, 24s. 6d., in bond; 23s.,

MERCURY.—Spot ex warehouse £87 per flask of 76 lb.

NUTMEGS. — West Indian spot, 80's, 9s. 3d. per lb. nominal; defectives, 6s. 9d. East Indian for shipment: 80's, 7s. 7½d. per lb.; 110's, 7s. 5d.; b.w.p., 4s. 9d.,

Nux vomica.—Cochin, 75s. per cwt. on the spot; shipment, 47s. 6d., c.i.f.

Orange peel. — Spot: Sweet ribbon, 1s. 8d. per lb., bitter quarters: West Indian, 10½d.; Spanish, 1s. 4d.

PEPPER.—White Sarawak spot, 3s. 1d. to 3s. 2½d. per 1b.; prompt shipment, 3s. 0½d., c.i.f. Black Sarawak spot, 2s. 6½d.; shipment, 2s. 4d., c.i.f. Black Malabar, 320s. per cwt. spot nominal; shipment, 262s. 6d., c.i.f.

PIMENTO. — Spot quoted at 714s. per cwt.; shipment, 580s., f.o.b.

Podophyllum.—Spot per cwt.: Emodi, 230s.; shipment, 215s., c.i.f.; Peltatum, 365s., spot.

Pyrethrum. - Extracts -– partially dewaxed, 25 per cent. pyrethrins, 69s. to 65s. 6d. per lb.; pale 82s. 6d. to 79s.; crude oleoresin, 60s. 6d.

Quassia.—Spot, 57s. 6d. per cwt.

QUILLAIA. — Spot, 130s. per cwt.; shipment, 110s., c.i.f.

RHUBARB. — Chinese spot cleared; small parcel of 80 per cent. pinky, 15s, 6d. per lb. landed.

SAEERON. — Mancha superior, 220s. per lb., spot.

SARSAPARILLA. — Jamaica native red spot, 3s. per lb.; shipment, 2s. 9d., c.i.f., nominal.

Sassaeras. — Brazilian is from 2s. 6d. per lb., duty paid.

per lb., duty paid.

SEEDS. — (Per cwt.). Anise.—Spanish, 260s., duty paid. Caraway.—Dutch, 165s., duty paid. Celery.—Indian, 145s., spot; shipment, 140s., c.i.f. Coriander. — Moroccan firmer at 56s., duty paid; shipment quoted at 50s., c.i.f. Cumin.—Moroccan, 200s.; Iranian, 220s., both duty paid; shipment, 185s., c.i.f., Iranian, 200s., c.i.f. Dill.—Indian unchanged at 80s., spot; shipment quoted at 70s., c.i.f. Fennel.—Indian quoted at 125s., spot; shipment, 115s., c.i.f. Fenugreek.—Moroccan firm at 50s., duty paid; shipment, 37s., c.i.f. Mustard.—English, 45s. to 70s., according to quality. ing to quality.

SENEGA.—Spot virtually cleared; afloat parcel offered at 20s. 6d. per lb. landed.

SENNA. — (Per lb.) Tinnevelly LEAVES, spot: Prime No. 1, 2s. 3d.; prime No. 2, 1s. 9d.; No. 3, f.a.q., 1s, 3d. Pods: handpicked. Tinnevelly quoted at 3s. 1½d. ex wharf. Alexandria pods: Scarce with only small lots of hand-picked at 6s, and manufacturing at 2s. 6d. facturing at 2s. 6d.

SHELLAC. — F.O.T.N., 185s. per cv. No. 1, 192s. 6d.; F.O., 210s. to 270s. 185s. per cwt.,

SLIPPERY ELM BARK. — Spot 3s. 4d. to 3s. 6d. per lb.

SQUILL.—Italian, spot. per cwt., 200s. nominal; Indian 90s.

STRAMONIUM.—Continental LEAVES 85s. per cwt. spot.

STYRAX. — Spot, 19s. 3d. per lb.; shipment, 18s. 9d., c.i.f.

Tonquin Beans.—Para spot, 5s. 4d. per lb.; shipment, 4s. 10½d., c.i.f.; Trinidad, 6s 6d., spot.

Tragacanth.—No. 1 ribbon about £190 per cwt. No. 2. £180, spot.

TURMERIC.—Madras finger, spot, quoted at 165s. per cwt.; new crop March-April shipment, 132s. 6d., c.i.f.

Valerian root. — Spot: East European, 175s. per cwt.; Indian, 175s. Shipment: Continental, 172s. 6d. to 214s., c.i.f.

Vanillin.—Rates (per lb.) are now:—5-cwt. lots, 21s. 6d.; 1-cwt., 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d.

Waxes. — (Per cwt.): Bees'.—Dar-es-Salaam, spot, 435s.; shipment, 415s., c.i.f. Sudanese, spot, 375s., in bond; shipment, 362s. 6d., c.i.f. Candelilla, spot, 465s.; forward, 460s. landed. Carnauba, fatty grey, spot, 290s.; shipment, 265s., c.i.f.; prime yellow, spot, 720s.; shipment, 665s., c.i.f.; c.i.f.

WITCH HAZEL LEAVES.—Spot quotations are 2s. 6d. per lb.

Essential and Expressed Oils

Almond.—Imported sweet oil is 6s. 9d. per lb., spot.

ANISE. — Chinese, 1: shipment, 11s. 9d., c.i.f. - Chinese, 13s. per lb., spot;

CAJUPUT.—Spot, from 10s. per lb.

CALAMUS.—Spot, Indian, 95s. per 1b. as to source.

Cananga.—Spot, 28s. per lb.

CARDAMOM.—Indian from 225s. per lb., spot.

CHAMOMILE.—Small lots 640s. per lb.

CHENOPODIUM.—About 40s, per lb. in original containers.

CITRONELLA. — Ceylon spot, 10s. 9d.: shipment, 10s. 3d. per lb., c.i.f. Formosan, 6s. 4½d. in bond; February–March shipment, 5s. 4d., c.i.f.; Chinese, 6s., in bond, 5s. 4d., c.i.f.

CLOVE.—Madagascar leaf spot, 7s. 3d. per lb., duty paid; shipment, 6s. 6d., c.i.f. Rectieled 87–88 per cent., 12s. Distilled bud-oil, English: B.P., 26s. per lb. for 1-cwt, lots.

Cod-Liver. — B.P. in 45 gall. drum is 11s, 6d, per gall. including 30s. deposit on drum. Veterinary is from 9s. 6d. per gall. 25-stone lots. Delivered terms.

Coriander. — Russian oil, from 35s, to 40s. per lb., spot.

CUBEB.—Spot supplies of imported are 85s. per lb.

GERANIUM.—Bourbon, 85s. to 92s. 6d. per lb. on the spot.

Grapefruit.—Spot offers from 18s, per

JUNIPER. — B.P.C. 1949 oil is from 15s. 6d. per lb. JUNIPER WOOD, from 5s. LAVANDIN.—From 20s. to 27s. per lb. as to quality.

LAVENDER.—Spot, 25s. to 35s. per lb. as to quality.

LAVENDER SPIKE.—Firm. Spanish, new

crop, 18s. 6d. per lb. LEMONGRASS.—Spot, 11s. per lb.; shipment, 10s. $1\frac{1}{2}$ d., c.i.f.

Lime. — West Indian distilled 58s. per lb. on the spot.

NUTMEG.—West Indian B.P. oil is about 75s. per 1b. English distilled, 100s.

OLIVE. — Spanish £190 to £200 per metric ton f.o.b. Spanish port; Tunisian, £220 c. and f., London. Spot oil £240-£250 per ton ex wharf, duty paid.

Orange.—Floridan sweet oil, 7s. per lb. West Indian, 10s.; Spanish, 15s. to 17s. 6d.

PEPPERMINT. — Arvensis: Chinese spot, 7s. 6d.; shipment, 7s., c.i.f. Brazilian spot, 6s. 6d.; shipment, 6s. $4\frac{1}{2}$ d., c.i.f. Piperita: Italian, 48s. to 70s., spot. American from 32s. 6d. per lb. as to make.

PINE. — Pumilionis, 30s. per lb.; sylvestris, 9s.; abietis, 15s. to 24s.

VETIVERT.—Bourbon spot, 85s. to 105s. per lb.; shipment, 95s., c.i.f.

YLANG YLANG. - Best oil quoted about 145s, per lb.

UNITED STATES REPORT

NEW YORK, FEBRUARY 11: Brazilian MENTHOL was lifted another 10 cents to \$3.35 a lb. CREAM OF TARTAR firmed up to 32 cents a lb., a gain of two cents. Canadian Balsam moved up \$3 to \$35 per gall. LOBELIA HERB edged up 10 cents to \$1.20 a lb. with export demand reported. Lower per lb. among ESSENTIAL OILS were PETITGRAIN at \$2.30, down 10 cents; Californian LEMON at \$6, down 75 cents and Italian oil at \$7, down \$1: EUCALYPTUS, 70-75 per cent.. at \$1.10, down 15 cents; and the 80-85 per cent., at \$1.20, down 15 cents.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Monday, February 17

PESTICIDES GROUP, SOCIETY OF CHEMICAL INDUS-TRY, 14 Belgrave Square, London, S.W.1, at 5.30 p.m. Dr. Daphne J. Osborne (Agricultural Research Council's unit of experimental agro-nomy) on "Interactions of Hormonal Substances in the Growth and Development of

Tuesday, February 18
BRANCH, PHARMACEUTICAL SOCIETY, BLACKPOOL. Imperial hotel, Blackpool, at 7.45 p.m. Photographie evening

BRIGHTON AND HOVE BRANCH, PHARMACEUTICAL SOCIETY, Langford's hotel, Third Avenue, Hove, at 8 p.m. Dr. F. B. Meade (chest physical sician, Brighton chest elinic) on "Chest disease and the Air we Breathe,"

CARDIFF PHARMACISTS' ASSOCIATION, Royal hotel, Cardiff, at 7.30 p.m. Dr. L. Coles (county analyst, Glamorgan County Council) on "The Work of a Public Analyst" (illustrated).

EAST KENT BRANCH, PHARMACEUTICAL SOCIETY,

Sir William Courtenay hotel, Dunkirk, at 8 Dr. H. S. Bean (sehool of pharmacy, Chelsea College of Science and Technology) on "Disinfectants for Specific Purposes."

EAST METROPOLITAN BRANCH, PHARMACEUTICAI SOCIETY, Swan hotel, Stratford, at 8 p.m. Mr. W. N. Littlejohn (Editor, Perfumery and Essential Oil Record) on "Perfumes—Their Blending and Manufacture" (illustrated).

EPSOM AND SUTTON BRANCH, PHARMACEUTICAL Society, Charter Inn, High Street, Epsom, at 8 p.m. Mr. I. G. Holden (principal scientific officer, Metropolitan Police laboratory) on " Forensie Science."

GLASGOW AND WEST OF SCOTLAND BRANCH, PHAR-MACEUTICAL SOCIETY, Central hall, Glasgow, at 7 p.m. Dinner and dance.

HERTFORD BRANCH, PHARMACEUTICAL SOCIETY,
Mayflower Place, Hertingfordbury, at 8 p.m. Scientifie film evening.

LIVERPOOL BRANCH, GUILD OF PUBLIC PHARMA-CISTS, Exchange hotel, Liverpool, at 7.30 p.m. A speaker from the pharmaceutical division, Imperial Chemical Industries, Ltd.

LIVERPOOL COLLEGE OF TECHNOLOGY, Department of pharmacy, Byrom Street, Liverpool, 3, at 7.30 p.m. "Some Administrative Aspects of Hospital Pharmacy" (lecture series).

OXFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Columba's church hall, Alfred Street, Oxford, at 8 p.m. Film evening.

EES-SIDE BRANCH, PHARMACEUTICAL SOCIETY, Vane Arms hotel, High Street, Stockton-on-Tees, at 7.45 p.m. A speaker from Johnson & Johnson (Great Britain), Ltd., on "Modern Merchandising and Storefitting" (illustrated).

SOCIETY, Ovaltine factory, King's Langley, at 7.30 p.m. Film evening.

WEST KENT BRANCH, PHARMACEUTICAL SOCIFTY, New Hackwood hotel, Widmore Road, Bromley, at 8 p.m. Mr. T. E. Scott-Chard (reference officer, B.O.A.C.) on "Air Travel."

WEST MIDDLESEX BRANCH, PHARMACEUTICAL SO-CIETY, Vestry Hall, Raneleigh Road, London, W.5, at 8 p.m. Dr. A. H. Beckett (head, School of Pharmacy, Chelsea College of Science and Technology) on "Witchcraft to Modern Drugs " (illustrated).

Wednesday, February 19

BEDFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY. Bedford general hospital, North Wing, Bedford, at 8 p.m. "Marketing Research and its Application to Modern Business' by speaker from A. C. Neilsen Co., Ltd.
FOOD GROUP and NEWCASTLE-UPON-TYNE SEC-

Type, at 6.30 p.m. Dr. E. C. Barton-Wright on "Nutritional Value of Alcoholic Beverages. with Special Reference to Beer.'

HENDON AND EDGWARE BRANCH, PHARMACEUTICAL SOCIETY, Hendon Hall hotel, London, N.W.4, at 7 p.m. Annual dinner and dance.

ISLE OF WIGHT BRANCH, PHARMACEUTICAL SOCIETY, Ryde Castle hotel, Ryde, at 7.30 p.m. Mr. A. H. Briggs (CIBA Laboratories, Ltd.), on "The Rauwolfia Story."

LEICESTER AND LEICESTERSHIRE BRANCH, PHARMA CEUTICAL SOCIETY, Bell hotel, Leicester, at 7,30 p.m. Mr. C. Gunn (head, Leicester School of Pharmacy) on "History of Some Pharmaceutical Preparations."

LONDON SECTION, ROYAL INSTITUTE OF CHEMIS-

Kensington, London, S.W.7, at 7 p.m. Ladies' evening. Dr. F. A. Robinson on "With a Camera in Russia." TRY, Science Museum, Exhibition Road, South

SCOTTISH DEPARTMENT, PHARMACEUTICAL SOCIETY, 36 York Place, Edinburgh, at 7.45 p.m. Dr. J. Killoch Anderson (group medical superintendent, Glasgow Royal Infirmary and associated hospitals) on "Machines in Medicine."

SOUTHEND-ON-SEA BRANCII, PHARMACEUTICAL SO-

CIETY, Garon's banqueting suite, High Street. Southend-on-Sea, at 7 p.m. Annual dinner and

SOUTHPORT BRANCH, PHARMACEUTICAL SOCIETY, Prince of Wales hotel, Southport, at 7.45 p.m. Annual dinner and dance.

Thursday, February 20

BIRMINGHAM COLLEGE OF ADVANCED TECH-NOLOGY, department of pharmaey and biology, Gosta Green, Birmingham, 4, at 7.30 p.m. "Economics of Pharmacy" (lecture series).

CHEMICAL SOCIETY, ROYAL INSTITUTE OF CHEM-ISTRY and SOCIETY OF CHEMICAL INDUSTRY, Heriot-Watt College, Edinburgh, at 7.30 p.m. Professor A, R, Battersby on "How Poppies Make Opium."

DUNDEE AND EASTERN SCOTTISH BRANCH, PHARMA-CEUTICAL SOCIETY, Kidd's restaurant, Dundee, at 7.30 p.m. Speaker: Dr. W. Fyffe Dorward (nolice surgeon)

NEWCASTLE AND NORTHUMBERLAND BRANCH, PHAR-Road, Newcastle, at 7.30 p.m. Mr. T. H. Davison on "Surgery in Heart Diseases" (illustrated).

NORTH LONDON PHARMACEUTICAL ASSOCIATION, Café Royal, Regent Street, London, W.1, at 6.15 p.m. Annual dinner and dance.

PORTSMOUTH BRANCH, NATIONAL PHARMACEUTICAL UNION, Victory restaurant, Albert Road, Portsmouth, at 8 p.m. Consideration of reso-

nutions for N.P.U. annual meeting.

ROYAL SOCIETY OF HEALTH, 90 Buckingham

Palace Road, London, S.W.1, at 7.30 p.m.

Dr. H. Bang (professor of pharmacy administration, Washington State University) on "American Pharmacy,"

SLOUGH BRANCH, PHARMACEUTICAL SOCIETY, Beech Tree hotel, Maxwell Road, Beaconsfield, at 8 p.m. Mr. H. W. Tomski on "Economic History of Pharmacy."

Sunderland Branch, Pharmaceutical Society,

Roker hotel, Sunderland, at 7.45 p.m. Open forum, Panel: Messrs, W. M. Darling and J. H. Kerr (members of Council), F. H. Oliver (head, Sunderland school of pharmaey) and J. Reed (a member of the National Pharmaceutical Union Executive).

HAMES VALLEY PHARMACISTS' ASSOCIATION, Kingston hotel, Kingston-upon-Thames, at 7.45 p.m. National Pharmaceutical Union Branch PHARMACISTS' annual meeting, Mr. J. C. N. Wilford (a member of the Executive) on "Latest News from Mallinson House."

WORTHING AND WEST SUSSEX BRANCH, PHARMA-CEUTICAL SOCIETY, Central hotel, Railway Ap-proach, Worthing, at 8 p.m. Mr. D. F. D. Moore (National Cash Register Co., Ltd.) on "Modern Merchandising Methods."

COMMERCIAL **TELEVISION**

Figures in these columns represent the number of appearances of the "spot" during the week

February 23-29	London	Midland	North	Scotland	Wales	South	North-east	Anglia	Ulster	Westward	Border	Grampian	Eireann	Channel Is	W.&N.Wa
Anadin tablets	4	5	3	4	2	3	3	4	2	1	_	6	_	_	_
Andrex toilet tissues	5	3		3	3	3	3	3	3	3	3	3	_	3	_
Askit powders and tablets		_	_	14	_	_	—	_	_	_	5	- 3	$\overline{}$	_	_
Aspro tablets	4	4	4	4	4	4	4	4	_	4	4	4	_	_	_
Beeeham's pills	—	_	3	—	_	_	2	_	_	_	_	_	_	_	_
powders	5	5	5	4	5	5	5	4	5	4	5	3		5	—
Bisodol tablets and powder	_	3	_	_	_	_	—	_	_	_	_	_	_	_	_
Breetheeze	_	_	1	_	_	_	—			_	_	_	<u> </u>	_	_
Buttereup syrup	_	_	1	_		_	1	_	_	_	_	_	_	_	—
Cuticura preparations	_	2	2	—	_	_	1	_	_	_	_	_	3	_	_
Delrosa rose hip syrup	_	3	_	—	_	_	_		_	_	_	_	_	_	_
Disprin tablets	2	3	3	2	3	1	2	3	1	3	_	1	_	3	_
Euthymol tooth-paste	1	_	_	_	_	_	_	_	_	_	_	_	_		_
Gillette razor blades	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Goddard's embrocation	1	_	_	_	_	_	_	_	_		_	_		_	_
Gon tablets	2	1	1	_	1	1	I	_	I	_	1	I	1	_	_
Loxene shampoo	2	2	_	2	2	2	_	2	1	2	_	3		_	_
Milk of Magnesia	5	2	2	6	_	_	_	4	2	2	3	2	_	_	_
Moorland tablets	_	_	_	3	_	_		_	_	_	_	_		_	-
Nulon hand cream	2	_	_		_		_	_		_		_		_	_
Owbridge's lung tonie	4	4	4	_	4	4	4	4			_	_	_	_	
Penetrol inhalant	1	2	2	_	_	_	3	4		1	_	_			
Phyllosan	2	4	3	_	3	3	3	3				_			
Procol capsules	2 2	_	- 2	3	4	4	3		_	4	-	ند			4
Radox bath salts	2	4	_	_	_	2	2	2						_	
Rinstead pastilles	2	_3	2	_ 3	2	- 2	- 4			_	_		_		
Setlers	1	p				1					_	_		_	_
Veno's eough mixture					1		1		1		2	2	_	3	_
Yeast-Vite tablets	1	_	2	3	1	**	1	2	1	2	-	2		3	

Friday, February 21

BIRKINHEAD AND WIRRAL PHARMACISTS' ASSOCIA-TION, Central hotel, Birkenhead, at 8 p.m. Discussion of branch resolutions.

BOURNEMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Royal Victoria hotel, Boseombe, at 8 p.m. Mr. K. A. Lees (Glavo Laboratories, Ltd.) on Formulation '' ' Pharmaceutical course).

LEEDS BRANCH, NATIONAL PHARMACEUTICAL UNION, Griffin hotel, Leeds, at 8 p.m. Film strip: "Prescription for Profit" and discussion with a member of the N.P.U. office staff,

LIVERPOOL COLLEGE OF TECHNOLOGY, department of pharmacy, Byrom Street, Liverpool, 3, at 7.30 p.m. "Administration in Retail Phar-7.30 p.m. "Administ macy" (lecture series).

MICROBIOLOGY AND FINE CHEMICALS GROUPS, SOCIETY OF CHEMICAL INDUSTRY, 14 Belgrave Square, London, S.W.1, at 6.30 p.m. Mr. L. M. Miall on "Development of Fermentation Processes."

SOCIETY OF MEDICAL OFFICERS OF HEALTH, RUS-

sell hotel, Russell Square, London, W.C.1, at 9.30 p.m. Annual symposium.

Advance Information

THAMES VALLEY PHARMACISTS' ASSOCIATION, Queen's buildings, London Airport, Annual dinner and dance. March 11.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," January 22

For pharmaceutical substances (5)

LAETRILE, 838,869, by Mctazymes, Ltd., London. W.C.1

For insecticides, larvicides, fungicides and pesticides; preparations for killing weeds and destroying vermin; but not including antibiotics or preparations containing autibiotics (5)

TELODROX, 837,652, by Shell International Petroleum Co., Ltd., London, S.E.1,

For pharmaceutical preparations for the treatment of veins and of disorders of venous and capillary

blood circulation (5) VENORUTTON, 842,338, by Zyma, S.A., Nyon, Switzerland,

For pharmaceutical preparations for use as aids

slimming (5)
SLIMOLETS, 840,898, by James Alexander

Stevenson, Belfast, Northern Ireland, For pharmaceutical products (5)

STELLA-JETS, 843,422, by Laboratoires Sau-

ter, S.A., Geneva, Switzerland.
For all goods used in dental surgery and dentistry, but not including mouth washes, dental stoppings or dental amalgams (5)

VITACHROM, 844,036, by Vita Zahnfabrik H, Rauter, K.G., Essen, Germany. or antacid pharmacentical preparations (5)

SORBON, 845,301, by Leo Laboratories, Ltd., London, W.1.

For insecticides, fungicides, herbicides and weedpreparations, all containing chlorine (5) GAMMACLOR, 846,528, by Plant Protection, Ltd., London, S.W.1, and Yalding, Kent.

For effervescent pharmaceutical preparations containing vitamins (5)

EFFERVIVT, 848,976, by A. B. Astra, Apotekarnes Kemiska Fabriker, Södertalje, Sweden, For pharmaceutical preparations for human use; infants', invalids' and dietetic foods

ANTIGUE, 849,166, by Colgate-Palmolive Co.. New York, U.S.A.

For pliarmaceutical substances and preparations

DICTOPHINE, 849,409, by West Pharmaceutical Co., Ltd., Hove, Sussex, DEMIGRAN, 856,067, by Leo Laboratories, Ltd., London, W.1.

For preparations for killing weeds in water (5) AQUACLERE, AQUACIDE, B849,520-21, by Chipman Chemical Co., Ltd., London, S.W.1. For medicated preparations for the scalp and skin; and deodorants (5)

PEREMA 15, 849,951, by Romney Cosmetics. Ltd., London, S.W.1.

For pliarmaceutical preparations and substances, all for use as hypnotics, sedatives, tranquillisers and analgesics (5)

PROFUNDOL, 850,750, by Norgine Pharmaceutical Products (London), Ltd., London, W.C.1.

For insecticides, fungicides and weedkilling pre-

parations, all for use in spraying (5)
CHRYSSPRAY, B850,877, by Plant tion, Ltd., London, S.W.1, and Y Yalding,

For disinfectants, fungicides and sanitary substances (5)

ZICODET, 851,257, by Hygiene Research Unit, Ltd., Croydon, Surrey.

For pharmaceutical, medicated and sanitary substances; and disinfectants (5)

ZICOMAN, 851,260, by Hygicne Research Unit, Ltd., Croydon, Surrey.

For pharmaceutical preparations and pharmaceutical preparations of vitamins (5)

VICORPEX, 851,743, by Farbenfabriken Bayer,

A.G., Leverkusen, Germany.

For all goods (5)
PRO-MINDIF, 852,227, by Boots Pure Drug Co., Ltd., Nottingham. VOLDYS, 855,293, by

The British Drug Houses, Ltd., London, N.1. FINTAN, 855,822, by A.B. Astra, Apotekarnes Kemiska Fabriker, Södertalje, Sweden, For all goods, all for sale in the United Kingdom otherwise than for export but not including goods for export to the Irish Republic (5)

FEMETTES, 852,623, by Reckitt & Sons, Ltd., Hull, Yorks

For pharmaceutical preparations for use in the treatment of acne (5)

ACNESAN, B853,048, by A.B. Pharmacia. Uppsala, Sweden.

pharmaceutical preparations and sanitary substances (5)

BRITTAMATE, 853,136, by British Saccharin Sales Co., Ltd., London, S.W.1.

For lamps for photographic and for cinematographic purposes, spot lights, and photographic dark-room lamps (9)

Device with word KEIC, 829,381, by Kondo Electrical Industrial, K.K., Tokyo, Japan.

PATENTS

COMPLETE SPECIFICATIONS ACCEPTED

From the "Official Journal (Patents)," February 5

Process for the protection of materials against termite-attack using arylamides, Farbenfabriken Bayer, A.G. 952,337.

Phosphorothioic acid esters. Monsanto Chemical Co. 952,391.

Process for the preparation of ethyllydrazinoacetate hydrochloride. Biorex Laboratories, Ltd. 952,400.

Alkaloid derivatives, R. Bellon, 952,484.

Steroid compounds and processes for their preparation, Roussel-Uclaf, 952,492,

Therapeutic composition of utility as a respiratory analeptic containing 2-amino-ethyl-isothiouronium bromide hydrobromide and amphetamine. Equilibre Biologique, 952,513.

Process for the production of penicillins, Distillers Co., Ltd. 952,519.

Substituted phenylalkylamines, Smith Kline &

French Laboratories, 952,547.

Derivatives of 4:4-bis (41-hydroxyphenyl)-pentanoic acid and methods of preparing same. Aspro-Nicholas, Ltd. 952,591-92,

Dimethyldithiocarbamic acid complex. Roussel-Uclaf. 952,631.

Production of 6,8-dithiooctanamides, Fujisawa Pharmaceutical Co., Ltd. 952,636.

6,8-dihalooctanoyl halides and 6,8-dihalooctanamides and their preparation thereof. Fujisawa Pharmaceutical Co., Ltd. 952,637.

Medicament administering apparatus, Pfizer, Ltd. 952,656.

Pressurised container. Sterling Drug, Inc. 952,705. Camphorated derivatives of 2-amino-thiazoline and their process of preparation. Equilibre Biologique, 952,708.

Plasmolyzation of yeast. Schwarz Bio Research, Inc. 952,713.

Quaternary ammonium compounds and their preparation, Wellcome Foundation, Ltd. 952,736. Cattle dips. Boots Pure Drug Co., Ltd. 952,801,

Tetrahydropyrimidines of therapeutic value Ayerst, McKenna & Harrison, Ltd. 952,802. Guanidino compounds and method of producing

same. Parke, Davis & Co. 952,891.

Preparation of substituted 3H-1,4-benzodiazepine 4-oxides. Warner-Lambert Pharmaceutical Co.

952,922. Production of tetracline compounds, American Cyanamid Co. 952,972.

Aqueous filmforming composition. Chas. Pfizer & Co., Inc. 953,000.
Substituted N-phenylethyl-N¹-phenylpiperazines.

Soc. Industrielle pour la Fabrication des Antibiotiques. 953,005,

Photographic camera. Kamera-und Kinowerke Dresden Veb. 952,331-32.

Photographic colour processing, Kodak, Ltd. 952,339.

Photographic film camera with a coupled exposure regulating device. Agfa, A.G. 952,364. Photographic cameras. Voigtlander, A.G. 952,462. Apparatus for producing a photograph having a

relief effect, P. F. Cuvier, 952,743. British patent specification relating to the above will be obtainable (price 4s, 6d, each) from the Patent Office, 23 Southampton Buildings, Chan-

cery Lanc, London, W.C.2, from March 18.

NEW COMPANIES

ETHICALS WHOLESALERS, LTD. (P.C.). Capital £1,000, To carry on the business of wholesale and retail chemists and druggists, etc. Directors: David Swerling, M.P.S., and Gerald M. Morris, M.P.S. R.O.: 83 Bridge Street, Manchester, 3.

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HOLY WELL SPRING (MALVERN), LTD. (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in mineral waters, chemicals, etc. Subscribers: Herbert C. Grellier, 61 Pittville Lawn, Cheltenham, Glos, and R. G. Malby.

NOBLESSE BEAUTY PRODUCTS, LTD. (P.C.).—Capital £100, To carry on the business of manufacturers of and dealers in cosmetics, ctc. Subscribers: Michael D. Pringsheim and Haig A. Tahta. R.O.: 3 Frederick's Place, Old

Jewry, London, E.C.2. REPUTABLE DRUG STORES, LTD. (P.C.). —Capital £100. To deal in pharmaceutical products and toilet requisites, etc. Leonard A. Marks and D. C. V Subscribers: Wynn, R.O.:

1 New Oxford Street, London, W.C.1.
SANSHO WESTERN SALES, LTD. (P.C.).—
Capital £100. To carry on the business of importers, exporters of lanolin and similar compounds, etc. Subscribers: Percy O. Ansell and W. L. Cockerill, 116 Chancery Lane, London, W.C.2

UNICHEM (NORTHERN), LTD. (P.C.). -Capital £100. To carry on the business wholesale, retail and manufacturing chemists, etc. Directors: Trevor H, Cale, M.P.S., James H. Evans, M.P.S., and Eric G. Smith, M.P.S. R.O.: Crown House, Morden, Surrey.

CONTEMPORARY THEMES

Subjects of contributions in current medical and technical periodicals

ANKYLOSTOMIASIS and spirocercosis. Treatment of in dogs by the new compound 2,6-diiodo-4nitrophenal, Vet. Rec., February 8.

NEW ADRENERGIC NEURONE BLOCKING AGENTS.

Nature, February 8.

d- and l-Isomers of 2-(a-HYDROXYBENZYL)-BEN-ZIMIDAZOLE, Synthesis and virus-inhibitory activity of. Nature, February 8.

COARSE SUSPENSION FORMULATION, Theory of, J.

pharm. Sciences, January. ACETYLSALICYLIC ACID, Effects of selected U.S.P.

tales on stability in tablets. J. pharm, Sciences,

POTENTIAL HYPOGLYCAEMIC SULPHONYLUREAS. J. pharm. Sciences, January.

DIAGNOSIS OF PREGNANCY, Accuracy of an immu-nological test for. *Lancet*, February 1. DIAZOXIDE HYPERGLYCÆMIA and its continued

relief by tolbutamide. Lancet, February 8.

DUPLICATION IN RESEARCH, New Scientist, February

GENETIC WEAPONS AGAINST INSECTS. New Scientist,

February 6.

STEROIDS in treatment of the nephrotic syndrome in adults, Brit. med. J., February 8.

BARBITURATE ESTIMATION. Rapid quantitative. Brit. med. J., February 8.

OXETHAZAINE, Controlled trial of as an analgesic in duodenal ulcer, Brit, med, J., February 8, Sodium oxacillin for primary staphylococcal pyodermas, J. Amer, med, Ass., January 11. Phosphate P 32 in chronic leukæmia and lym-

phomas. J. Amer. med. Ass., January 11.

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	'Distivit'	Γablets		
	20 mcg.	Tube of 25	2s	8d
		Bottle of 100	8s	8d
$\begin{pmatrix} D & D \\ B & B \end{pmatrix}$	100 mcg.	Tube of 25	7s	6d
8 8		Bottle of 100	21s	10d
		Bottle of 500	100s	6d
$\begin{pmatrix} c & c \\ D & D \end{pmatrix}$	1000 mcg.	Foil pack of 4	6s	0d
		Bottle of 50	55s	θd







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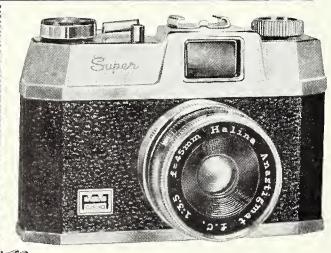
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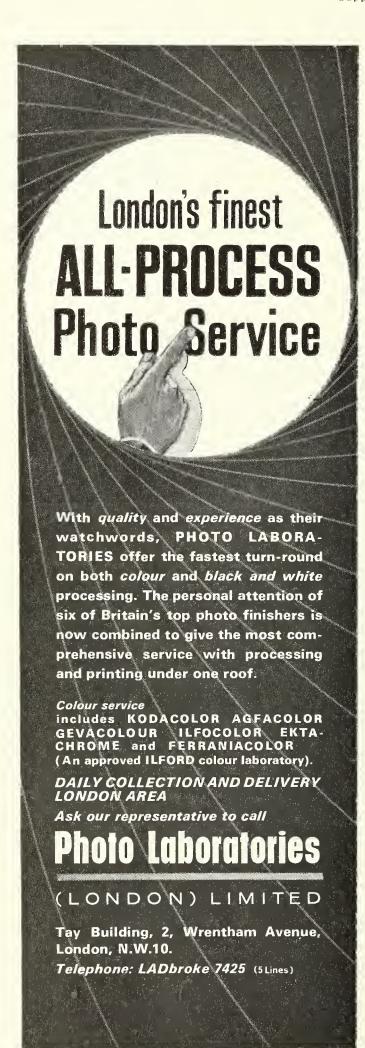
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TELEPHONE: CENTRAL 6565

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APPOINTMENTS — 24/- per \frac{1}{2}'' s.c. minimum and pro rata. AGENTS — AUCTION SALES — BUSINESSES FOR SALE and WANTED — CLEARANCES and WANTS — CONTRACTS — MISCELLANEOUS — ATENTS — PARTNERSHIPS — PREMISES — PUBLIC and LEGAL NOTICES — SITUATIONS VACANT. Run-on — 4/- per line (minimum 20/-). Semi-display — 24/- per \frac{1}{2}' s.c. minimum. Displayed with border rule, larger type faces and blocks — 60/- per s.c.i, minimum. Reduced rates for one-third, one-half and full pages on application. SITUATIONS WANTED — 6/- per 18 words minimum, then 4d, per word. Use of Box No. — 2/-, Advertisements received by 4 p.m. Tuesday published same week.

PREMISES

OXFORD CITY, in well-established parade of modern shops on Council housing estate between Headington and Cowley, Lock-up shop suitable for pharmacy with good dispensary, cloakroom and garage. To be let on lease by public tender. 2-bedroom maisonette also available. Tenders returnable by 21st February, 1964. Full particulars and appointment to view apply City Estates Surveyor, City Chambers, Queen Street, Oxford (tel.: 49811).

BUSINESSES FOR DISPOSAL

£1,250, S.A.V. LEIGHTON BUZZARD, Beds. Over 100 years, established pharmacy'd druggists. Near multiple position, premises with living accommodation. Turnover £6,000 per annum. Nominal figure quoted for nucleus of goodwill. Business capable of substantial increase by pharmacist, as previously. New lease twenty years, £750 per annum, Rapidly expanding and prosperous town, Rare opportunity. Particulars from John Harrison, Auction & Estate Offices, Bridge Street, Leighton Buzzard, Beds,

BELFAST, N.I. For sale (owner retiring), well-established pharmacy, main road, city centre. Best position in city, First-class turnover, increasing yearly. Apply, F. W. Isdell & Co., Certified Accountants, Bank of Ireland Chambers, 93 Ann Street, Belfast, 1. C 5845

BIRMINGHAM. Old-established pharmacy on main road, corner shop, unopposed, Turnover £9,100, net profit £2,600. Owner retiring. Living accommodation at present sublet, property for sale £2,000 or available on lease. Price for goodwill, fixtures, etc., £500 or offers. Stock at valuation approximately £2,200. Part payment considered. Apply Box C 5847.

DRUG AND PHOTO STORE, Suffolk. Old-established, opening for pharmacy. Turnover £3,500. Lock-up or with accommodation at moderate rent. £1,800, s.a.v. Box C 5851.

APPOINTMENTS

BATTERSEA GENERAL HOSPITAL, BATTERSEA PARK, S.W.11

Locum Tenens Senior Pharmacist or Pharmacist
for 71-bed acute general hospital. Apply
Secretary, naming two referees. C 8896

BARNET GENERAL HOSPITAL, WELLHOUSE LANE, BARNET, HERTS (490 beds)

Locum Pharmacist required. Apply to Hospital Secretary, naming two referees. C 8863

BATTERSEA GENERAL HOSPITAL (71 beds), BATTERSEA PARK, S.W.11

Chief Pharmacist (Category II)
for busy acute hospital, Good opportunity
for younger pharmacist, Applications naming
three referees to Secretary, Battersea & Putney Group Hospital Management Committee,
St John's Hospital, St. John's Hill, S.W.11.

BRENTWOOD GROUP HOSPITAL MANAGEMENT COMMITTEE

Dispensing Assistant
required to work within Group under direction of Chief Pharmacist. Hospitals pleasantly situated within 30 minutes of London by frequent electric trains, Salary scale £380 at 19 years rising to £678 p.a. Applications with names of two referees to Chief Pharmacist, Harold Wood Hospital, Harold Wood, Essex, (Tel.; Ingrebourne 45533.)

C 8876 C 8876

BROOKWOOD HOSPITAL, KNAPHILL, WOKING, SURREY

Dispensing Assistant
Applications are invited for the above post.
The successful candidate will be required to work under the supervision of the Chief Pharmacist.
Residential

Pharmacist.

Residential accommodation (female) available.

Excellent staff social club.

Applications giving particulars of age, experience and qualifications together with the names of two referees to the Physician Superintendent as soon as possible.

C 654

intendent as soon as possible.

BRENTWOOD GROUP HOSPITAL MANAGEMENT COMMITTEE

required to work within Group under direction of Chief Pharmacist. Hospitals pleasantly situated within 30 minutes of London by frequent electric trains, Salary scale £725 to £970 p.a. Applications with names of two referees to Chief Pharmacist, Harold Wood Hospital, Harold Wood, Essex. (Tel.: Ingrebourne 45533).

DORKING GENERAL HOSPITAL, HORSHAM ROAD **DORKING, SURREY** (252 beds)

Chief Pharmacist (Category II)
non-resident. Salary scale £940—£1,260 per annum. Establishment consists of advertised post plus part-time pharmacist. Arrangements to visit pharmacy may be made with the Hospital Secretary (Tel.: Dorking 3883). Applications, giving details of age, experience, qualifications, and naming two referees, of Group Secretary, Redhill Group Hospital Management Committee, Earlswood Mount, Pendleton Road, Redhill, Surrey. C 8870

CENTRAL MIDDLESEX HOSPITAL, PARK ROYAL, LONDON, N.W.10

Pharmacist and Locum Pharmacist

required. Applications, giving details of qualifications, experience and age, to Medical Director, as soon as possible. C 8881

DRYBURN HOSPITAL. **DURHAM** (316 general beds)

Deputy Chief Pharmacist

required to assist the Group Chief Pharmacist with pharmacy arrangements at the seven hospitals in the Durham Group, Salary £855—£1,165 per annum. Detailed applications, quoting two referees, to Group Secretary, Dryburn Hospital, immediately. C 5850

CENTRAL MIDDLESEX HOSPITAL, PARK ROYÁL LONDON, N.W.10

Senior Pharmacist

required. Applications giving age, details of experience, etc., to Medical Director as soon as possible. Whitley Council terms and conditions of service.

GLENSIDE HOSPITAL, STAPLETON, BRISTOL (1,100 beds)

Dispensing Assistant

(fcmale) required. Salary according to agc. £290 at 18, £440 at 22 or over, plus £50 for holders of the certificate of the Society of Apothecaries or other approved qualification, Eventual maximum £580 unqualified, £660 qualified, Higher commencing salary may be payable to experienced applicant, Board residence if required, Applications giving full details and names of two referees should be sent to Secretary.

HAMMERSMITH HOSPITAL AND POST-GRADUATE MEDICAL SCHOOL, DU CANE ROAD, LONDON, W.12

Senior Pharmacist

required at the above General Post-graduate Teaching Hospital (Category V) to take charge of new modern and well-equipped Sterile Products Laboratory, Post offers wide range of experience and opportunity to keep abreast of developments in General Pharmacy, Whitley salary scale £810—£1,060 per annum plus £45/£55 London Allowance. Applications stating age, qualifications and experience and naming two referees to Chief Pharmacist.

C 8873

Appointments—Continued

HAMMERSMITH HOSPITAL AND POST-GRADUATE MEDICAL SCHOOL, DU CANE ROAD, LONDON, W.12 Pharmacist

Pharmacist
required at the above General Post-graduate
Teaching Hospital (Category V), Post offers
varied work and excellent experience, Department now being enlarged and modernised. Previous experience not essential, Whitley salary scale £725—£970 per annum, plus
London Allowance. Applications stating age,
qualifications and experience and naming two
referees to Chief Pharmacist. C 8872

HILL END HOSPITAL, ST. ALBANS, HERTS

Dispensing Assistant
Male or female, required, Whitley Council salary and conditions of service. Single accommodation may be available, if required, Hospital is within easy reach of Central London, Apply stating age, full particulars of experience and naming two referees to the Hospital Secretary. C 661

KING'S LYNN AREA HOSPITALS MANAGEMENT COMMITTEE

Pharmacist

Pharmacist
Applications are invited for the appointment of Pharmacist in the Group Pharmacy Department at the West Norfolk & King's Lynn General Hospital, King's Lynn, Whitley Council conditions of service and salary £725 rising to £970 per annum, plus £25 higher qualification allowance where applicable, Additional increments for previous experience since qualification may be granted up to a commencing salary of £855 per annum, Prospects of promotion, Plenty of some for keen person, as in addition to other qualified assistance, the department has three trainee Dispensing Assistants, Applications, stating age, qualifications, experience, and the names of two referees, to be sent to the Group Secretary, St. James' Hospital, Extons Road, King's Lynn, Norfolk.

LONDON JEWISH HOSPITAL, STEPNEY GREEN, E.1

Locum Pharmacist

required at the above hospital, Modern department, Every third Saturday morning off, Previous hospital experience not essential, Salary £19 19s, per week, Applications to the Chief Pharmacist (telephone: STE, 4251).

C 8861

LEAVESDEN GROUP HOSPITAL MANAGEMENT COMMITTEE

Locum Pharmacists
(One full-time and One part-time) required in this Group. Previous Hospital experience not essential. Salary—full-time—£21 10s. 6d. per week, Further particulars from Group Pharmacist, Tel.: Garston 2222, Ext. 30. C 8833

ST. ALBANS CITY HOSPITAL, NORMANDY ROAD, ST. ALBANS, HERTS (403 beds)

Senior Pharmacist or Pharmacist
Applications are invited for the above post
at this general hospital within easy reach of
Central London.

Central London,

Locum Tenens Pharmacist
required immediately pending this appointment, Whitley Council salary and conditions of service, Applications stating age, qualifications and experience, together with the names of two referees, to the Chief Pharmacist.

C 652

EDUCATIONAL

SUNDERLAND EDUCATION AUTHORITY TECHNICAL COLLEGE

School of Pharmacy

Applications are invited from suitably qualified persons for the following posts:-

ASSISTANT LECTURER (GRADE B) IN PHARMACOGNOSY (2 POSTS).

ASSISTANT LECTURER (GRADE B) IN PHARMACOLOGY.

The successful candidates will be required to teach to the standard of the Final Bachelor of Pharmacy Examination. All members of staff are encouraged to undertake research for which excellent facilities are available.

The salary will be in accordance with the Burnham (Technical) Scale for Assistant Lecturers (Grade B) £830-£1,430 (with appropriate additions for qualifications and training).

Removal expenses, a temporary lodging allowance and a generous mortgage advance for home purchase will be granted in appropriate cases.

Further particulars and application forms may be obtained from The Registrar, Technical College, Sunderland, Co. Durham, and applications should be returned within fourteen days to the Director of Education, 15 John Street, Sunderland.

Canvassing will disqualify.

LONDON JEWISH HOSPITAL, STEPNEY GREEN, E.1

Pharmacist
required at the above hospital, Modern department giving good general experience.
Every third Saturday morning off, Previous hospital experience not essential, Whitley Council conditions of service and salary, Applications in writing stating age, qualifications and experience and giving the names of two referees, to the Chief Pharmacist.

C 8860

NETHERNE HOSPITAL, COULSDON, SURREY

required, salary £810 x £35 (6)—£1,020 x £40 (1)—£1,060 per annum, plus London Weighting allowance. Conditions of service as agreed by the Pharmaceutical Whitley Council. Accommodation for single or married person may be made available if required. Hospital within easy travelling distance of London and the coast, Application in writing with full particulars, together with the names of two referees, to the Physician Superintendent.

C 8891

ROYAL FREE HOSPITAL **GROUP**

Locum Pharmacist
Locum Pharmacist required for work in the
Group immediately, Applications with names
of two referees should be addressed to the
Group Chief Pharmacist, Royal Free Hospital, Gray's Inn Road, W.C.1. C 8838

ST. GILES' HOSPITAL, CAMBERWELL, S.E.5

Senior Pharmacist

Applications invited for post of Senior Pharmacist, Salary Scale £855—£1,115 p.a. Part-time considered, Further details from, or applications to, Chief Pharmacist, C 8888

NETHERNE HOSPITAL, COULSDON, SURREY

COULSDON, SURKE 1
Locum Pharmacist
required. Salary £19 19s, per week, Conditions of service as agreed by the Pharmaceutical Whitley Council. Accommodation for single lady, Applications in writing with full particulars together with the names of two referees, to the Physician Superintendent, C 8847

ST. ALBANS CITY HOSPITAL, NORMANDY ROAD, ST. ALBANS, HERTS

(403 beds)
Locum Tenens Pharmacist
required immediately. Part-time would be
considered. Whitley Council salary and
conditions of service. Detailed applications
giving names of two referees to the Hospital
Secretary. C 659

ST. JOHN'S & HITHER GREEN HOSPITAL Pharmacist

required at once. Applications to Hospital Secretary, St. John's Hospital, Morden Hill, S.E.13.

ST. GILES HOSPITAL,

ST. GILES ROAD, S.E.5

Locim Pharmacist
full-time or part-time required immediately.
Apply Chief Pharmacist, St. Giles Hospital,
St. Giles Road, S.E.5.

C 8889

ST. JOHN'S & HITHER GREEN HOSPITAL

Locum Pharmacist
required. £19 19s, Apply Hospital Secretary,
St. John's Hospital, Morden Hill, S.E.13.
C 657

Appointments—Continued

ST. MARY'S HOSPITAL TEACHING GROUP, PRINCESS LOUISE KENSINGTON HOSPITAL FOR CHILDREN ST. QUINTIN AVENUE, LONDON, W.10

Pharmacist

Applications are invited from suitably qualified persons for the post of Pharmacist at the above mentioned Hospital. Permanent or locum tenens, Apply in writing to the undersigned, together with the names of two referees.

F. C. HARRIS,

Secretary. C 5830

UNIVERSITY COLLEGE HOSPITAL, GOWER STRÉET. LONDON, W.C.1

Dispensing Assistant

holding the Apothecaries' Hall Certificate, required.

Applications, with names of two referees, to Assistant Secretary. C 8892

SITUATIONS VACANT RETAIL (HOME)

A FULLY EXPERIENCED unqualified lady assistant required for pleasant family business. Counter duties and window dressing. Apply Manager, L. S. & W. Short, Ltd., 226 Venner Road, Sydenham, S.E.26. C 5862

BANSTEAD, SURREY. Owing to breakdown BANSTEAD, SURREY. Owing to breakdown of negotiations due to unforescen causes, vacancy is still open for unqualified dispensing assistant, fully experienced N.H.S. and private dispensing, required for interesting senior position. Knowledge photographics useful, Staff of six, Good atmosphere and doctor and customer relations. Self-contained flat with three rooms and bathroom available frec of rent and rates if required. Apply Mr, Woollatt, R, R, Skidmore (Chemists), Ltd., 30 High Street, Banstead. Phone: Burgh Heath 720 (evening or Sunday, Burgh Heath 2024). C 5846

CHEMIST COUNTER ASSISTANTS required for London, E.C.1 and N.1. Highest salary paid in exchange for experience and loyalty. Apply in writing to the Managing Director, Kendale Chemists, 51 Exmouth Market, London, E.C.1.

HUGH LLOYD, Watford, require keen pharmacist manager; old-established modernised pharmacy. Highest prospects, House, garden, garage available. Steyn, 20 North Audley Street, London, W.1. Telephone: Mayfair 2226.

SOUTH KENSINGTON, Lady assistant required with experience of high-class cosmetics. Arden, Rubinstein, Lancôme, etc. Saturday half-day. W. E. Cane, Ltd., 10 Gloucester Road, S.W.7.

WISBECH. Pharmacist required for new modern branch in large departmental stores opening March 1964. Salary to commence £1,250 per annum, inclusive, Excellent conditions of employment include four weeks holiday, superannuation and sick benefits. Progressive post in charming Cambridgeshire town, Assistance with housing if required. Apply to Secretary and Chief Executive Officer, Peterborough Co-operative Chemists, Ltd., Park Road, Peterborough. C 5822

WISBECH, Locum required for two months commencing approximately mid - March. Interview by appointment at our expense. Please forward details to Superintendent Chemist, Peterborough Co-operative Chemists Ltd., Westgate, Peterborough. C 5823

SITUATIONS VACANT RETAIL (HOME)



Boots invite applications from students who will be taking their Final Examinations in 1964. To the pharmacist when he has served his postgraduate tions in 1964. To the pharmacist when he has served his postgraduate training with the Company, Boots offer—* Good Salaries plus Bonuses ** Business Training ** Promotion Prospects ** Good Holidays and ** Business Training ** Pension and other benefits. Applications in the first ** Extended Leisure ** Pension and other benefits. place should be addressed to the Retail Staff Department, Station Street, Nottingham. Interviews can be arranged in any part of the country.

€8750

RETAIL (OVERSEAS)

REGISTERED PHARMACIST, single

male, required for modern pharmacy in Bermuda, Phone: Footscray 7700 (Sidcup, Kent) for an appointment,

PHARMACIST

Male or female required, for dispensing by well-established firm in Nyasaland. Commencing salary £120 a month. Fare paid. Accommodation available. Write with full details to:

C. D. Norris, 21 Birchin Lane, Lombard Street, London, E.C.3

C 5856

WHOLESALE

EXPORT SALES EXECUTIVE, Pharmaceutical manufacturer requires sales and marketing executive capable of developing export sales of ethical and "over the counter" products. Applicants must be experienced in this field, especially with regard to Middle Eastern markets, and must be used to operating on his own initiative within a budget. The successful applicant must be prepared to travel quite extensively but will be based in the U.K., (London). Apply in writing, with full details to: The Managing Director, Denver Laboratories, Ltd., 12 Carlisle Road, London, N.W.9.

C 8894



EVANS MEDICAL LTD.,

Invite applications for vacancies on their Medical Representative staff in the following areas:

Leicestershire and Northamptonshire

Nottinghamshire and Lincolnshire. Staffordshire and E. Shropshire. Middlesex and N.W. London,

Applicants should be Pharmacists or experienced medical representatives. A good salary and full expenses will be paid and a car scheme is provided. A pension and life insurance scheme is in operation.

The successful applicants will be required to join a training programme commencing 1st May, 1964.

Applications giving details of age, education, qualifications and experience should, in the first instance, be addressed to:—

Personnel Manager, EVANS MEDICAL, LTD., Speke, Liverpool 24.

C 8883

HEAD OF PRODUCT DEVELOPMENT LABORATORY

An expanding pharmaceutical company with a world-wide organisation and diversifying interests requires a Manager of Product Development to head the Development Laboratory effort of the company's European organisation.

The person chosen would be required to take over a small existing group, to build this up as rapidly as possible within present facilities, and to plan for future developments of both facilities and staff. For this purpose initiative, drive and organising ability are essential and, in order to be chosen, a candidate would need to have a proven record of success both as a manager and in applied pharmacy research. He should desirably be 35-40 years of age with the urge to create and head up a vigorous and effective laboratory effort, welding the efforts of pharmacists, chemists, biochemists and chemical engineers; and he should have the ability to work effectively with his opposite numbers in production, research, marketing and management. An appropriate salary will be paid.

Applications in writing with brief particulars should be sent to the Scientific Director, Miles-Ames Research Laboratories, Stoke Court, Stoke Poges, Slough, Buckinghamshire.

C 8882

LONDON. Representative required by old established company to sell pharmaceutical and toilet goods. Preferably someone with experience in calling on London chemists. Good basic salary plus commission. Car or car expenses provided, Write in confidence to Box C 5849.

SANGERS LIMITED

Wholesale Chemists

invite applications for the position of

Assistant Manager

at their

Bedford Branch

Preference will be given to applicants within 30/40 age group. Experience of wholesaling essential. Please write giving full particulars of age, previous experience, etc., to The Secretary, Sangers Limited, 258 Euston Road, London, N.W.I.

PHARMACISTS

An entry into industry, B.D.H, offer an opportunity for Pharmacists or the product pharmaceutical stuan opportunity for Pharmacists or Post-graduate pharmaceutical students to gain useful experience in production. The work is interesting and the terms and conditions of employment are satisfactory.

Applications, with full details to The Senior Personnel Officer (EWP),

THE BRITISH DRUG HOUSES LTD.,

Graham Street, N.1.

C 8886

THOMAS KERFOOT

Who Sell Only to Wholesale and Retail Pharmacists require an

EXPERIENCED REPRESENTATIVE

in Yorkshire

This is an important appointment to the Sales staff of one of Britain's oldest Pharmaceutical Houses.

CONDITIONS OF SERVICE INCLUDE

- Good guaranteed salary or generous salary and commission.
- Company car—exchanged annually.
- Flat rate expense allowance paid 52 weeks in the year.
- Contributory pension scheme.
- 5. A minimum of correspondence (other than orders).

APPLY IN WRITING—GIVING FULLEST POSSIBLE DETAILS IN FIRST INSTANCE—IN CONFIDENCE OF COURSE TO

> Sales Manager, Thomas Kerfoot & Co., Ltd., Vale of Bardsley, Ashton-under-Lyne, Lancashire

C 8859

SITUATIONS VACANT WHOLESALE



SQUIBB

Founded over a century ago by Dr. Edward Robinson Squibb, the Company has been continuously associated with the discovery and development of therapeutic agents, from the first manufacture of pure anaesthetic ether in the 19th century to the production of radioisotopes in the 20th. SQUIBB is part of the Olin Mathieson Chemical Corporation and conducts one of the most ambitious pharmaceutical research programmes in the world.

The British company is pursuing a dynamic policy of expansion in the home and overseas markets, a large proportion of the U.K. production being exported. Production, accounts and research are located in Liverpool and marketing and administration in Twickenham.

The Company has established a high reputation for prescription pharmaceuticals including antibiotics, corticosteroids and anti-hypertensives.

Due to rapid expansion throughout the Company, several important new positions are being created which can offer exciting career opportunities to the successful applicants. Conditions of employment, which include a non-contributory pension scheme, are excellent.

1. ANIMAL HEALTH SALES MANAGER

This is a senior appointment which will appeal to an amhitious and experienced executive in the agricultural and veterinary fields. There will be scope for initiative in expanding the existing range of products and the selected candidate will have the opportunity of building up his own team. A car will be provided.

Location Twickenham

2. MANAGER - RESEARCH AND DEVELOPMENT

This is a senior position which should be of interest to male scientists with enthusiasm for pharmaceutical product development. The selected candidate is likely to he an honours graduate with a hackground in biochemistry, and analytical or pharmaceutical chemistry, and he should have had several years' of industrial or allied experience.

Location Speke

3. MANAGER - QUALITY CONTROL

This is a senior position in a company which believes in the highest possible standards of quality control. The rapidly expanding analytical department handles an extremely wide range of new materials and complex pharmaceutical preparations.

pharmaceutical preparations.

The person chosen will have an honours degree in chemistry or a related field and he will prohably have had at least 5 years' industrial experience in a similar position or have worked as the Deputy in a large lahoratory.

Location Speke

4. ASSISTANT ANALYTICAL CHEMIST

There is also a vacancy in the Quality Control Dept. for an assistant chemist who should he a graduate, or hold the H.N.C. qualification. The successful candidate is likely to have had some experience in the pharmaceutical industry.

Location Speke

5. METHOD STUDY OFFICER

The successful candidate for this position should hold a qualification in the field of Work Study or else hold an engineering or chemical qualification.

He should have 3 years' or more experience in method study techniques and their application.

Location Speke

6. PHARMACIST - TECHNICAL ASSISTANT

This position will appeal to male or female pharmacists, who have a keen interest in modern therapeutics. An ahility to think and write clearly and a methodical approach to the processing of medical and pharmaceutical information are essential attributes.

The successful applicant will he responsible for overseas product registration.

Location Twickenham

7. MEDICAL REPRESENTATIVES

Applications are invited from pharmacists, those who have a medical or pharmaceutical background, or graduates, to fill vacancies in 3 important territories, N. Yorkshire, Notts/Derby and Bedfordshire. Previous experience of medical representation or of selling would he an advantage.

Attractive salaries will he offered plus participation in an incentive payment scheme, the use of a company car, and the payment of all husiness expenses.

Applications which should state position sought, salary required, and include full details of curriculum vitae, will be treated in the strictest confidence and should he addressed to:

Company Secretary, E. R. Squibb & Sons Ltd., Regal House, Twickenham, Middx.

Marked "Private & Confidential"

Interviews will be held in London or Liverpool.

Situations Vacant—Continued

LONDON, NORTH. A small company requires an able pharmacist of cither sex to take full charge of a well staffed branch. Accommodation is offered above the premises, Please write brief details in first instance to Box C 5841.

TABLET DEPARTMENT. Pharmaceutical company requires a pharmacist to take charge of a modern well equipped tablet manufacturing department. Experience of large-scale tableting procedure is essential and some knowledge of formulation desirable. Salary would be in accordance with qualifications and experience and will be attractive for the right man. Applications giving full details, including age, qualifications and experience, should be addressed to The Company Secretary, Antigen, Ltd., Roscrea, Ireland. C 5821 TABLET DEPARTMENT.

SITUATIONS WANTED

EXECUTIVE, experienced establishing subsidiaries, and export ethicals, pharmaceuticals, packed and bulk, prepared to reside abroad, seeks progressive position U.K. or overseas, Box C 5857.

EXPERIENCED MALE DISPENSER, wholesale and retail, also stock control ethicals, etc., requires responsible position with wholesale manufacturing firm. All areas considered, Lancashire and London areas preferred, Interview. Box C 5838.

LANCASHIRE medical representative (45) desires post with English company who prefer experienced men to schoolboys, Active contacts since 1948, Box C 5852.

AGENTS

ACTIVE, FREE LANCE AGENTS required London area, East Anglia, Midlands and South Coast having established connection with photographic dealers, photographic chemists, sports goods' shops, opticians, Required by leading importers of high-quality optical goods including binoculars, telescopes, magnifying glasses, etc. Applicants must have established connection in their area. Write giving full details of area covered, commission required and length of time established in trade and indication of commodities already carried. Interviews to be conducted locally. Reply, in confidence, to Sales Manager, Box C 5861.

AGENTS REQUIRED. Calling on retail chemists, Yorkshire, Lancashire, Cheshire. Box C 5832.

GOOD OPPORTUNITY for well-established perfumery/cosmetic sales representatives calling on leading stores and high-class chemists to acquire high-class selling line on commission basis, Areas: Kent, Sussex, Surrey, South and South-West England, Apply Box C 5835.

NORTHERN IRELAND agent with good chemist connections required by manufacturer. Present agencies and particulars to

Box C 5833.

AGENCIES

AGENT requires plastic syringes, etc., contacts with the medical profession in the North. Price and samples. Box C 5854.

WANTED

CASH FOR CAMERAS!!! Best prices paid for German and Japanese apparatus that has become obsolete or is "sticking," Quantity unlimited. The Camera Co., 320 Vauxhall Bridge Road, S.W.i. VIC. 5438. C 627

HENSON LITTLEWOOD, dealer in surplus photographic stock, (We buy the lines you can't sell.) 6 Broad Street, Lyme Regis. Tel.: Lyme Regis 568.

Tel.: Lyme Regis 568. C 649
WE WILL PURCHASE for cash a complete stock, a redundant line, including finished or partly finished goods, packing raw materials, etc. No quantity too large, Our representative will call anywhere, Write or telephone: Lawrence Edwards & Co., Ltd., 6/7 Wellington Close, Ledbury Road, London, W.11. Tel.: Park 3137-8. C 140

SITUATIONS VACANT WHOLESALE

H. B. DORLING LIMITED,

A Subsidiary of Macarthys Pharmaceuticals Limited,

have a vacancy for an Order Office Manager. Applicants should have experience in retail or wholesale pharmacy with a good knowledge of patents, toilets and general sundries and a knowledge of photographic goods would be an advantage but not essential. Age from 25-45 and capable of controlling a small staff of 15. Salary according to age and experience and a contributory pension scheme is operated. Three weeks holiday. Half-day Saturday with one Saturday in four free. Apply in writing, giving usual details, to the Director, H. B. Dorling Limited, Selinas Lane, Dagenham. Tel.: DOM. 6641.

EVANS MEDICAL (NORTHERN IRELAND) LTD.

require a

YOUNG MALE PHARMACIST

Pharmaceutical degree or diploma. Must be an M.P.S.N.I. QUALIFICATIONS:

AGE LIMIT: **EXPERIENCE:**

Experience in hospital pharmacy or in a medical information department an ad-

Position:

Assistant to Managing Director. Duties to include running a small manufacturing unit and providing an information service for our hospital and retail customers, plus other executive duties.

Conditions of employment are good. Pension and life assurance schemes operated. Please apply in writing, stating age, qualifications and experience, to:—

Managing Director,

EVANS MEDICAL (NORTHERN IRELAND) LTD.,

99/105 Ravenhill Avenue, Belfast, 6.

C 8875

RIKER

ADVERTISING MANAGER

Are you a copywriter looking for a bigger job?

Are you an account executive with experience of pharmaceutical advertising wanting fresh opportunities?

are you someone in the pharmaceutical industry who believes he has a flair for organising an active department (staff of 5) producing a wide range of promotional material for world-wide use.

If you are, you may be the person we are looking for to take charge of our advertising department.

Please apply in writing in the first instance to:

The Personnel Director, Riker Laboratories, Morley Street, LOUGHBOROUGH, Leics.

C 8879

BUSINESS OPPORTUNITIES

IMPORTANT AGENCY FOR DISPOSAL. Sole distribution rights in high quality French Perfumery and Cosmetics range, On British market about two years, Numerous outlets already opened, Unique opportunity for expansion for company with strong sales force. Enquiries from principals only please, Box

MANLY MAN'S BELT, Nationally advertised "obtainable from chemists," 35/-, Full trade terms, Order by waist from Manly Co., Manor House, Worcester Park, Surrey, DERwent 3877. C 635

FOR SALE

COATING PAN AND STAND. Manesty CP3 motorised stand with 30 in, dia. copper pan, new and unused, single speed 400-440/3/50. Also 24 in. dia. copper coating pan on stand, used, with direct coupled new motor 240/1/50. No reasonable offer refused, Closing down, 17 Green Lane, Yeadon, Leeds.

C 5844

OFFERS INVITED. 132 x 10 oz., 70 x 20 oz., recess glass labelled gold lined rounds. Excellent, many unused. Comprise N/M and W/M W.F.s, Act. Green poisons, blue plug syrups. Good investment. To collect (3 orange crates), Wilkinson, C 5837

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TENDERS

NATIONAL HEALTH SERVICE Supply of Surgical Dressings, Medicines, Drugs, etc.

The Minister of Health, on behalf of the Welsh Hospital Board, invites tenders for the supply of Surgical Dressings, Medicines, Drugs, etc., as detailed below to NATIONAL HEALTH SERVICE HOSPITALS IN WALES for one year commencing 1st July, 1964. Categories of Stores: Surgical Dressings, Anæsthetics, Antiseptic Fluids, Dextrose, Injections, Medicinal Tablets, Medicines and Drugs, Liquid and Sofit Paraffins, Serologicals and Spirit Methylated Industrial.

logicals and Spirit Methylated artial.

DUE DATE FOR THE RETURN

OF TENDERS: 10 a.m., 13th

March, 1964.

Tender forms may be obtained on

written application to the Ministry

of Health, 14 Russell Square, Lon
don, W.C.1, quoting reference

S(2C), stating clearly the category

or categories of stores for which

forms are required.

No undertaking can be given that

the lowest (or any) tender will be

accepted.

C 8867

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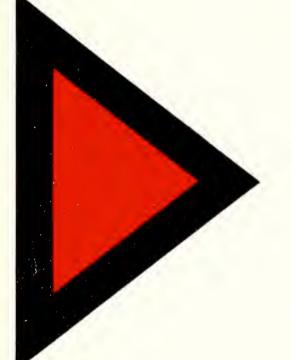
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